

Research report

# Expectancies, dietary restraint, and test meal intake among undergraduate women

Robyn Sysko<sup>a,\*</sup>, B. Timothy Walsh<sup>b</sup>, G. Terence Wilson<sup>a</sup>

<sup>a</sup>*Department of Psychology, Rutgers, The State University of New Jersey, Eating Disorders Clinic, 41 C Gordon Road, Piscataway, NJ 08854, USA*

<sup>b</sup>*Department of Psychiatry, College of Physicians and Surgeons of Columbia University, New York State Psychiatric Institute, New York, NY, USA*

Received 24 July 2006; received in revised form 1 November 2006; accepted 1 November 2006

## Abstract

This study investigated the relationship between self-reported dietary restraint and expectancies about caloric content on test meal consumption among undergraduate women. Participants completed two test meal sessions during which they were asked to consume as much milkshake from a covered opaque container as they wished. In one session, participants were instructed that the milkshake was made with high-calorie ingredients, and in the other that the milkshake was made with low-calorie ingredients. The milkshakes in both sessions were actually made with the same ingredients. Participants' mean consumption was less on the low-calorie instruction day (402 g) than on the high-calorie instruction day (382 g), but the difference was not statistically significant. In addition, few significant relationships were observed between dietary restraint measures and total intake on either the low- or high-calorie instruction days. Thus, this study supports a growing body of literature indicating that scores on measures of dietary restraint are not related to the actual restriction of food intake.

© 2006 Elsevier Ltd. All rights reserved.

**Keywords:** Dietary restraint; Behavioral restriction; Eating behavior; Restraint theory

## Introduction

The term “dietary restraint” has been used to refer to a range of attitudes and behaviors, including food avoidance, ongoing attempts to restrict caloric intake to lose weight that are associated with unsuccessful dieting (Lowe, 1993), and a cognitive control over eating, which makes dieters vulnerable to episodes of uncontrolled eating when that control is disrupted (Polivy & Herman, 1985). Higher scores on measures of dietary restraint have been shown to predict the future development of binge eating (e.g., Stice & Agras, 1998), and dietary restraint is often suggested as a risk factor for the development of eating disorders (e.g., Polivy & Herman, 1985).

A number of studies have evaluated the relationship between eating behavior, typically in an experimental

paradigm, and self-report measures of dietary restraint. Much of this research has examined a theory described by Polivy, Herman, and colleagues. This theory, often termed the restraint hypothesis, postulates that restrained eaters, those who exert cognitive control over food consumption and score highly on the Restraint Scale (Herman & Polivy, 1975), will overeat after being exposed to a disinhibitor, such as breaking a dietary rule or consuming a forbidden food. The effect of disinhibitors like pre-loads (i.e., the consumption of a food prior to an experimental meal or taste test) on restrained eaters has been supported in numerous studies (for a review see Ruderman, 1986 or Lowe, 1993).

These studies typically classify participants based on the median score of the Restraint Scale into low- and high-restrained groups. Participants consume a pre-load (e.g., milkshake) and subsequently complete a taste test (e.g., ice cream, cookies; Ruderman, 1986). The amount of food consumed during the taste test portion of the experiment is measured to determine the effect of the disinhibitor (the pre-load). High-restrained participants tend to eat

\*Corresponding author.

E-mail address: [rsysko@eden.rutgers.edu](mailto:rsysko@eden.rutgers.edu) (R. Sysko).

<sup>1</sup>Current address: VA Connecticut Healthcare, 116B/Psychology, West Haven Campus, 950 Campbell Avenue, West Haven, CT 06516, USA.

significantly more food during the taste test after consuming a high-calorie pre-load than low-restrained participants, suggesting that after breaking a dietary rule (i.e., consuming a high-calorie milkshake), the eating of highly restrained participants is disinhibited (Ruderman, 1986). Similar patterns of behavior are believed to play a role in the occurrence of binge eating (e.g. “I’ve blown my diet;” Fairburn, Marcus, & Wilson, 1993).

Recent research has questioned whether the model described by Polivy, Herman, and colleagues accurately describes the relationship between dietary restraint and eating behavior. In a series of four experiments, Stice, Fisher, and Lowe (2004) examined whether commonly used self-report measures of dietary restraint were negatively correlated with food consumption. The experiments were conducted in diverse settings, including both laboratory and naturalistic eating environments, and participants included undergraduate women, women with bulimia nervosa, women with binge eating disorder, women without an eating disorder, and female patrons of a fast food restaurant (Stice et al., 2004). In all four studies, no relationship was observed between the measures of dietary restraint and caloric consumption, with one exception. Significant negative correlations were observed between the Dietary Intent Scale (DIS; Stice, 1998) and caloric intake and fat-gram intake for participants consuming a meal in a fast food restaurant. However, the correlation, while statistically significant, was “rather meager” ( $r = -0.24$ ,  $p < 0.05$ ), and, as the authors noted, “there is still much room for improvement” (Stice et al., 2004, p. 55). Stice et al. (2004) concluded that the measures of dietary restraint utilized in the study were not valid assessments of true short-term food restriction.

Martin et al. (2005) used a similar experimental design to examine the relationship between dietary restraint and meal consumption during a series of four meals. Individuals without an eating disorder were asked to consume sandwiches instead of their usual lunch on four different days. Across the four sessions, there was no effect of dietary restraint, as measured by the Three Factor Eating Questionnaire (TFEQ; Stunkard & Messick, 1988), on total intake during lunch (Martin et al., 2005). In addition, a recent study of eating behavior among patients with anorexia nervosa and individuals without an eating disorder also found that several widely used scales of dietary restraint did not correlate with total intake during a laboratory lunch meal for either participant group (Sysko, Walsh, Schebendach, & Wilson, 2005).

Thus, while restrained individuals appear to increase food consumption in response to disinhibition in experiments involving a pre-load and a taste test (e.g., Ruderman, 1986), there does not appear to be a relationship between dietary restraint and food consumption during a standardized breakfast meal, meals at a university cafeteria (Stice et al., 2004), or lunch meals (Martin et al., 2005; Sysko et al., 2005). Some of the discrepancies observed between studies may be related to differences in experi-

mental design, which may have influenced the subsequent relationship between dietary restraint and eating behavior. For example, the expectations of participants during an eating behavior study may be particularly important in influencing total intake. Two previous studies examining the restraint hypothesis (Polivy, 1976; Spencer & Fremouw, 1979) illustrate the potential impact of cognitive factors in the study of dietary restraint.

Polivy (1976) manipulated the expectations of restrained and unrestrained male undergraduates by instructing participants that they were receiving a “rich, high-calorie, gourmet, pudding-type dessert,” or a “low-calorie pudding” (Polivy, 1976, p. 239). After consuming the pudding, participants were presented with sandwich quarters, and the number of sandwiches eaten was measured. Expectations about the pudding were manipulated using both the instructions and the true caloric content of the food, including the following four conditions: (1) true high calorie (high-calorie pudding and high-calorie instructions); (2) true low calorie (low-calorie pudding and low-calorie instructions); (3) fake high calorie (low-calorie pudding, high-calorie instructions); and (4) fake low calorie (high-calorie pudding, low-calorie instructions). Polivy (1976) found an interaction between dietary restraint and perceived calories (what participants believed they ate), suggesting that cognitive factors significantly affected meal consumption; however, the overall effect of the manipulation was not very large.

Spencer and Fremouw (1979) conducted a similar study, but the cognitive manipulation was limited to the perception of whether the food consumed was high or low calorie. High- and low-restrained female undergraduates were given a liquid pre-load and told that the pre-load was either high or low calorie. In both the “told high-calorie” and “told low-calorie” conditions, the shake had an equivalent caloric density. After consuming the shake pre-load, participants completed a taste test with three ice creams. High-restrained participants consumed significantly more of the ice cream after the told high-calorie condition than the told low-calorie condition, indicating that the cognitive manipulation was successful. For restrained eaters, cognitive expectations about the caloric content of a pre-load produced disinhibited eating in the laboratory, regardless of the true caloric content of the pre-load.

The current study was designed to examine the effect of expectations about the caloric content of a food on subsequent intake. Unlike both the Polivy (1976) and Spencer and Fremouw (1979) studies, this experiment did not use a pre-load paradigm. Studies utilizing a pre-load paradigm investigate whether the violation of a dietary rule (e.g., consuming a pre-load) by restrained eaters overrides their self-imposed dietary restriction during a subsequent taste test. The current study instead measured the effect of the cognitive manipulation on the consumption of a meal (lunch), which more closely approximates eating outside of the laboratory. The second aim of the current study was to

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات