



Research report

Taking weight-loss supplements may elicit liberation from dietary control. A laboratory experiment [☆]



Yevvon Yi-Chi Chang ^a, Wen-Bin Chiou ^{b,*}

^a Department of Hospitality Management, Tunghai University, 1727, Sec.4, Taiwan Boulevard, Taichung 40704, Taiwan, ROC

^b Institute of Education, National Sun Yat-sen University, 70 Lien-Hai Rd., Kaohsiung 80424, Taiwan, ROC

ARTICLE INFO

Article history:

Received 31 July 2013

Received in revised form 16 September 2013

Accepted 20 September 2013

Available online 2 October 2013

Keywords:

Dietary control

Liberating effect

Weight-loss supplements

Weight reduction

ABSTRACT

Given that changes in diet and exercise habits are difficult to initiate and maintain, the use of weight-loss supplements has become an appealing alternative approach to weight management for many individuals. The current research examined whether the use of weight-loss supplements induced overly optimistic assessments of progress toward weight reduction, leading to psychological abdication of dietary regulation. Participants were randomly assigned to take either an identified placebo or a purported weight-loss supplement (actually the same placebo). Each participant reported perceived progress toward weight reduction following the manipulation. Consumption of snacks in a taste test and choice of sugary drinks were recorded. The results showed that participants receiving a purported supplement ate more in a taste task and preferred larger quantities of sugar in their reward drinks than did controls. Mediation analysis supported that the perception of progress toward weight reduction contributed to the liberating effect. Using weight-loss supplements may increase perceived progress toward weight reduction but decrease dietary self-regulation. These thought-provoking findings can serve as a basis for educating the public about the myth that they are free to feel liberated from the need to regulate their eating when using weight-loss supplements.

© 2013 Elsevier Ltd. All rights reserved.

Introduction

Obesity is a major cause of health complaints in developed countries (e.g., Haslam & James, 2005; Pittler & Ernst, 2004; WHO technical report series., 2000). For example, more than half of the adult US population is overweight (defined as a Body Mass Index (BMI) >25 kg/m²) or obese (defined as a BMI >30 kg/m²) (Flegal & Williamson, 2010; Ogden et al., 2006; Wang, Beydoun, Liang, Caballero, & Kumanyika, 2008). Achieving and maintaining weight loss requires significant lifestyle and behavioral modification (Wing & Phelan, 2005). However, the general public may use low-cost methods for weight reduction such as non-prescription weight-loss products (e.g., herbs, vitamins, and nutritional supplements; Udani, Hardy, & Madsen, 2004) because diet- and exercise-related habits are difficult to initiate and maintain (Aarts, Paulussen, & Schaalma, 1997; Holland, Aarts, & Langendam, 2006). Pharmacies and health-food stores offer vast selections of products

promoting weight loss (Brudnak, 2002), many of which suggest that significant weight loss can be achieved without diet or exercise (Ashar, Miller, Getz, & Pichard, 2003). Supplements are an appealing alternative or adjunct for weight management for many individuals (Blanck et al., 2007). For example, in a survey conducted in 2005–2006 with a representative sample of 3500 US adults, 33.9% of those adults trying to lose weight reported ever using a dietary supplement for weight loss (Pillitteri et al., 2008). Americans are increasingly turning to dietary supplements to lose weight, with sales of weight-loss supplements estimated to total >\$1.6 billion in 2005 (Nutrition Business Journal, 2006). Use of dietary supplements is increasing, but it does not appear to be correlated with improved public health (Radimer et al., 2004). The present research demonstrated that weight-loss supplements may be associated with unintended consequences if people feel liberated from the self-regulation of weight management.

In principle, choices are usually driven by multiple underlying goals, each of which may appear to exclude the others if viewed in isolation. For instance, people may want to enjoy culinary delicacies while also wanting a slim figure, or they may simultaneously believe in saving for retirement and taking luxurious vacations. Considerable research suggests that prior actions may activate or prime certain goals that affect subsequent choices (e.g., Dhar & Simonson, 1999; Novemsky & Dhar, 2005; Strahilevitz

[☆] Acknowledgments: This research was partially supported by the National Science Council, Taiwan, Republic of China (Project No. NSC 100-2628-S-110-005-MY3). We would also like to acknowledge the support received from "Aim for the Top University Plan" of the National Sun Yat-sen University and Ministry of Education, Taiwan, Republic of China.

* Corresponding author.

E-mail address: wbchiou@mail.nsysu.edu.tw (W.-B. Chiou).

& Myers, 1998; also see Wheeler, DeMarree, & Petty, 2007 for a related review). For example, Wilcox, Block, Fitzsimons, and Vallin (2009) demonstrated that the mere presence of a healthy food option vicariously fulfills health-related goals and provides people with “license” to indulge in tempting food options. Based on recent research showing that engaging in positive behavior may increase the likelihood of engaging in indulgent behavior (e.g., Khan & Dhar, 2006; Mazar & Zhong, 2010; Sachdeva, Iliev, & Medin, 2009), we hypothesized that committing to an action (e.g., taking weight-loss supplements) may provide behavioral confirmation for a focal goal (e.g., weight reduction), which, in turn, may encourage the pursuit of other goals (e.g., culinary pleasure).

According to the concept of the licensing effect, originally proposed in the moral regulation domain (Monin & Miller, 2001), committing to a virtuous act may boost the relevant self-concept (e.g., the moral self), thus granting the individual license to choose options that are inconsistent with the salient self (Mazar, Amir, & Ariely, 2008). Specifically, the notion of moral licensing (relaxed moral strivings) suggests that behaving morally allows individuals to establish symbols of a moral identity and boost their sense of moral self-completion, giving them license to engage in fewer moral behaviors or more immoral behaviors subsequently (Jordan, Mullen, & Murnighan, 2011). For example, Monin and Miller (2001) found that a previous action supporting equality between the sexes licensed subsequent behaviors reflective of sexual discrimination. Similarly, Sachdeva et al. (2009) showed that reminding people of their humanitarian attributes reduced their charitable donations. With regard to the licensing effect in the domain of health regulation, Finkelstein and Fishbach (2010) demonstrated that consumers asked to sample a food item framed as healthful later consumed more food than did those who sampled the same item framed as tasty and those who did not eat the item at all. Recently, Chiou, Yang, and Wan (2011) showed that participants taking a purported multivitamin supplement exercised less than did a control group, even after an explicit reminder about the health benefits of walking. From the perspective of psychological license, this suggests that taking weight-loss supplements may reduce subsequent dietary control because use of such supplements would be perceived as conferring health advantages, providing license to engage in health-risk behaviors.

In the current research, we aimed to examine the link between taking weight-loss supplements and subsequent loosened regulation of dietary practices. An alternative mechanism underlying this association may be the *liberating effect* of goal progress on choice (Fishbach & Dhar, 2005). According to the perspective articulated in the literature on progress toward multiple goals (Carver & Scheier, 1998; Fishbach & Dhar, 2005; Soman & Shi, 2003), actions used to infer progress toward a focal goal can “liberate” individuals and thereby increase the likelihood of their pursuing activities that are incongruent or pertain to other goals. In other words, a focus on goal progress can justify a subsequent choice of inconsistent actions. Moreover, overly optimistic evaluations (e.g., Gilovich, Kerr, & Medvec, 1993) of goal progress may lead individuals who are likely to switch to another goal to do so. Previous work has shown that making a healthy choice may liberate one from subsequent health regulation (e.g., Finkelstein & Fishbach, 2010; Wilcox et al., 2009). For example, Fishbach and Dhar (2005) demonstrated that dieters who perceived greater progress toward their ideal weight were more likely to choose a tasty but fattening candy bar over a healthy snack. In the context of dietary supplementation, taking weight-loss supplements may suggest that progress has been made and that the focal goal is nearly achieved. As a result, individuals may be more likely to pursue alternative goals. Because taking weight-loss supplements involves the specific goal of weight reduction rather than the attainment of a self-concept as generally healthy, the notion of a liberating effect should be more

relevant than that of a licensing effect to the effect of taking weight-loss supplements on dietary control. Hence, this research tested the liberating effect of weight-loss supplements on actual dieting behaviors and provided initial insights into the ironic situation in which the population of obese individuals has increased despite the pervasive use of weight-loss supplements.

According to the notion of the liberating effect (Finkelstein & Fishbach, 2010; Fishbach & Dhar, 2005), taking weight-loss supplements, which can signal that sufficient progress toward weight reduction has already been achieved, may increase the competing desire to pursue culinary pleasure. Consequently, the presumed greater progress toward weight reduction provided by weight-loss supplements may decrease subsequent regulation of dieting practices. We conducted a laboratory experiment using a diverse set of behavioral measures to determine whether the use of weight-loss supplements was associated with the regulation of dieting behaviors. The choice of sugar-sweetened beverages (SSBs) and consumption of a popular snack were examined because they are closely related to weight gain (Kubik, Lytle, Hannan, Perry, & Story, 2003; Li, Harmer, Cardinal, Bosworth, & Johnson-Shelton, 2009; Vartanian, Schwartz, & Brownell, 2007). Specifically, the current research investigated the liberating effect by examining the impact of taking weight-loss supplements on the amount of food eaten in a taste test and the amount of sugar preferred in a reward beverage. The hypothetical mechanism (i.e., perceived goal progress) underlying the liberating effect of taking weight-loss supplements was also examined.

Method

Participants

The sample consisted of 74 adults (40 women and 34 men aged 18–49 years, mean = 31.9, *SD* = 6.7) recruited from the community through advertisements and flyers in 11 district offices in Kaohsiung, the largest city in southern Taiwan. Potential subjects (*N* = 97) were screened in face-to-face interviews to ensure that they met the following criteria: no history of allergies to dietary supplements, no current psychopathology or developmental disability, no behavior that would prevent them from consuming dietary supplements, and having a intention to lose weight. This study was approved by the ethical board of National Sun Yat-sen University.

Procedure

Upon the arrival at the lab, participants were informed that they were going to engage in a number of unrelated tasks. After providing written consent, participants were asked to help a faculty member in the biology department with a functional food test to be used in a randomized, placebo-controlled study. They were assigned to take either a weight-loss supplement or a placebo (i.e., the control group) pill via a block-randomization method to control the proportions of men and women between conditions. They then rated the perceived attributes of the pill they had just taken (e.g., size, shape, color, texture, and flavor). Unbeknownst to participants, all received placebo pills.

After the manipulation, participants completed a filler questionnaire, in which an item measuring perceived goal progress was embedded. They were asked to use a 7-point scale (1 = *least likely*, 7 = *most likely*) to indicate the extent to which they felt they were making progress toward weight reduction (adapted from Fishbach & Dhar, 2005). Subjects were subsequently asked to help with a pilot taste test for use in future studies. The experimenter told each participant “This additional taste task will take some

Download English Version:

<https://daneshyari.com/en/article/7310474>

Download Persian Version:

<https://daneshyari.com/article/7310474>

[Daneshyari.com](https://daneshyari.com)