Appetite 102 (2016) 15–24

Contents lists available at ScienceDirect

Appetite

journal homepage: www.elsevier.com/locate/appet

Paved with good intentions: Paradoxical eating responses to weight stigma

Laurence J. Nolan*, Amy Eshleman

Department of Psychology, Wagner College, 1 Campus Rd., Staten Island, NY, 10301, USA

ARTICLE INFO

Article history:
Received 2 September 2015
Received in revised form
13 December 2015
Accepted 19 January 2016
Available online 21 January 2016

Keywords:
Weight stigma
Eating behavior
Binge eating
Obesity

ABSTRACT

Because body weight is largely seen as controllable, weight stigma—the social devaluation of those who are overweight—is not subject to the social norms that condemn open expression of racism and sexism. Indeed, rejection of peers based on perceptions of excess weight is normative. Since weight stigma is internalized, popular views (and often the views of physicians) have suggested that increasing the salience of weight stigma might produce a reduction in overeating and/or an increase in physical activity. However, that perspective is not rooted in scientific evidence. Recent randomized controlled designs demonstrate that stigma may promote overeating. Correlational evidence suggests that self-reported stigma experience is associated with risk for binge eating and decreased interest in physical exercise and dieting, for children and adults. In addition to reviewing these research studies, this paper examines the potential for intersectionality of stigma across multiple social identities and considers alternatives to stigmatizing weight loss interventions.

Weight stigma, the "social devaluation and denigration of people perceived to carry excess weight" (Tomiyama, 2014, p. 8), was mentioned only in passing in Erving Goffman's (1963) seminal work on stigma. Werner J. Cahnman (1968) and Natalie Allon (1973) were among the first researchers to focus on perceptions of excess weight as a form of stigma, identifying the intersection of weight stigma with stereotypes about ethnicity, social class, and gender, and they inspired decades of empirical investigation of weight stigma. Unlike social norms condemning open expression of racism, classism, and sexism, social norms tend to condone overt expression of weight-based prejudice, open communication of negative stereotypes regarding weight, and social discrimination based on perceptions of excess weight (Major, Eliezer, & Rieck, 2012). Weight stigma is a critical social issue given increasing trends in excess weight (Ng et al., 2014), body dissatisfaction so prevalent that it is normative (e.g. Bordo, 1993; Fiske, Fallon, Blissmer, & Redding, 2014), and blame by others and of oneself for overweight (Brewis, 2014; Crandall, 1994). We apply recent research on the paradoxical effects of stigma salience on food consumption to examine the evidence that weight stigma is associated with increased food consumption and risk for disordered eating. We explore recommendations to promote healthy eating behavior and physical exercise, especially for children and adolescents. Future avenues of research are identified.

1. Paradoxical effects of weight stigma

Given that weight stigma is internalized, some have proposed that the power of the stigma could be harnessed. Popular views have suggested that increasing the salience of weight stigma might prompt reduction in overeating with an ultimate effect of reducing excess weight (e.g. Callahan, 2013; Freind, 2012; Liddle, 2013). This perspective is neither rooted in the history of research on weight stigma or the preponderance of contemporary research. Allon (1979) predicted that those who completely blamed themselves for excess weight would be unsuccessful in weight control. Recent randomized controlled designs contribute direct evidence that stigma salience harms, rather than helps, healthy eating behavior (Major, Hunger, Bunyan, & Miller, 2014; Schvey, Puhl, & Brownell, 2011). Correlational evidence reveals that stigma predicts poor outcomes for weight reduction interventions (Wott & Carels, 2010). Furthermore, self-reported stigma experience predicts decreased interest in exercise (Vartanian & Novak, 2011; Vartanian & Shaprow, 2008). Thus, the presence of weight stigma in many traditional approaches to weight loss (e.g., Children's Healthcare of Atlanta's Strong4Life campaign) may undermine weight loss goals.

* Corresponding author.
E-mail address: LNolan@wagner.edu (L.J. Nolan).

http://dx.doi.org/10.1016/j.appet.2016.01.027
0195-6663/

Reports of stigma salience paradoxically increasing food consumption often cite Latner, Wilson, Jackson, and Stunkard's (2009) seemingly contrary finding that retroactive reports of a history of stigmatizing experiences predicted weight loss, including maintenance of weight loss. An important distinction from the empirical work that supports paradoxical effects is that Latner et al. (2009) did not directly measure whether salience of stigma motivates weight loss efforts. Rather, they focused on retroactive recall of experience of stigmatization, which may differ in many ways from the effects of stigma salience (see Diener & Oishi, 2005).

In contrast, experimental manipulations demonstrate that increasing stigma salience paradoxically perpetuates obesity (Brewis, 2014; Major et al., 2014). Furthermore, stigmatization campaigns are not effective and may reduce self-efficacy (Puhl & Heuer, 2010; Puhl, Peterson, & Luedicke, 2013) and increase eating (Major et al., 2014; Schvey et al., 2011). Following Cahnman's (1968) observation that women, especially young women, are highly impacted by weight stigma, experimental methods have often focused exclusively on women. A key example is Schvey et al. (2011), whose work offers valuable evidence regarding the impact of stigma salience on food consumption, despite random assignment failing to evenly distribute pretest scores on negative affect and body mass index (BMI) evenly across experimental conditions. Overweight women who were randomly assigned to watch a 10-min video that presented clips emphasizing weight stigma consumed three times as much energy during a subsequent task than did overweight women assigned to watch a neutral video, and significantly more energy than women who were not overweight, regardless of video. Major et al. (2014) replicated this behavioral result by inducing salience of stigma through exposing women to an article about workplace discrimination against obese persons. Rather than focusing on objective body mass index, Major et al. (2014) focused on women's perceptions of themselves as overweight. When weight stigma was made salient, women who perceived themselves as overweight ate more of a snack (approximately 80 more kilocalories) compared to self-perceived overweight women who read a neutral article. Perceived body weight predicted greater eating and feeling less self-control over eating only when women had been exposed to stigmatizing messages.

Major et al. (2012) suggest that increased energy consumption under conditions of weight stigma can be explained by the decrease in self-control on one domain that coincides with or follows an exertion of self-control in another domain (Baumeister, Bratlavsky, Muraven, & Tice, 1998; Inzlicht, Schmeichel, & Macrae, 2014). Major et al. (2012) demonstrated an exhaustion of executive control following weight stigma salience. After overweight women were videotaped giving a speech about their positive qualities as a dating partner, they had greater difficulty controlling their responses on a Stroop task. Beyond short-term consequences, Hatzenbuehler, Phelan, and Link (2013) argue that long-term management of a stigmatized identity causes repeated taxing of self-control that might deleteriously affect emotion regulation, mental health, and physical health. Loss of control is central to binge eating, which is relatively common among people who are obese (Yanovski, 2002), yet self-control in a domain can be strengthened with regular practice (Muraven, 2010). Furthermore, it is possible that the manipulations of stigma salience in laboratory studies may be different—stronger and therefore more exhausting—than types of salience likely to occur in everyday life (Tomiyama, 2014).

In addition to the experimental work cited above, there are a number of correlational studies that have linked the experience of weight stigma with elevated food consumption. Puhl and Brownell (2006) reported that 80% of adult respondents reported eating food in response to weight stigma experiences. Furthermore, 77% reported refusing to diet in response (but 70% also reported incidences of dieting in response to stigma). Reported food choice is also related to the frequency of stigma experiences. Of particular note, Seacat, Dougal, and Roy (2016) avoided the potential problem of distorted memory that occurs in a cross-sectional design. Rather than relying on retrospection, over the course of a week, they asked overweight women to record a daily diary of experiences of weight stigma, exercise, and "healthiness" of diet. At the aggregate level, total weight stigma experiences over the course of the week negatively correlated with self-reported dietary healthiness, especially for those with high internalized stigma. In a similar study, Vartanian, Pinkus, and Smyth (2014) asked overweight women and men to record stigma experiences over the course of 2 weeks. Participants reported negative affect associated with stigmatizing experiences, but eating-related behaviors were not measured. Carels et al. (2009) found that overweight adults in a weight loss program who had greater implicit weight bias (measured by an Implicit Associations Test) self-reported greater energy intake, lower energy expenditure and exercise, and less weight loss.

In multiple longitudinal studies, experience of weight discrimination, or self-perception as one who might be stigmatized, predicted poorer health outcomes years later. Sutin and Terracciano (2013) found that weight discrimination predicted increased likelihood of becoming or staying obese at follow-up four years later. Individuals who were not obese at the baseline, but who had experienced weight discrimination, were two and a half times more likely to become obese. For individuals who were obese at baseline, those who reported experiencing discrimination were three times more likely to stay obese. Other forms of discrimination measured in the study, including sexism and racism, were not related to obesity risk. Similarly, a recent examination of longitudinal data suggests that perception of oneself as overweight is paradoxically associated with future weight gain (Robinson, Hunger, & Daly, 2015). Schafer and Ferraro (2011) found that perceived weight discrimination predicted poorer functional ability (e.g., ability to carry groceries or walk a mile) a decade later. Thus, across experimental manipulations, cross-sectional correlational studies, and longitudinal analyses, weight stigma paradoxically predicts increased eating, decreased exercise, and greater risk of excess weight and poor health outcomes.

2. Social identity threat, particularly stereotype threat, as mechanism for increased eating

Steele, Spencer, and Aronson (2002) explain social identity threat as occurring when a social situation activates awareness that an aspect of one's identity may prompt devaluation, marginalization, or discrimination. They note that social identity threat might be aroused by a cue in a given environment or by cultural assumptions regarding the likelihood that negative stereotypes will be applied for a particular activity. Once social identity threat has been aroused, an individual's attention will be directed toward vigilance for any signs of stigmatization, lasting as long as the threat seems relevant. There is psychic cost of distraction as an individual experiences the conflict between hoping to be valued and searching for evidence of being devalued (see also Major & O'Brien, 2005).

Perceiving oneself as overweight can combine with salience of weight stigma to produce social identity threat (Major et al., 2012). Aspects of a situation can increase conscious awareness of problematic stereotypes and devaluation based on weight. Social identity threat triggers stress and decreases executive control; both effects predict greater difficulty managing weight (Major et al., 2014; see Muraven & Baumeister, 2000). When executive control is reduced, food consumption may increase. Thus, induction of stereotype threat, a type of social identity threat, results in behaviors that may undermine weight reduction by increasing energy