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Beliefs about eating and eating disorders

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Abstract
Beliefs about foods and binge eating may influence the development and maintenance of eating disorders and the likelihood that people will seek treatment. We found that the majority of a random sample of members of a large health maintenance organization considered binge eating a problem for which there are effective treatments. Self-reported binge eaters, however, were significantly less likely to agree that there are effective treatments. Two thirds of the sample reported that certain foods are addictive and also believed that strict dieting is an effective means of reducing binge eating. Therapeutic implications of these attitudes are discussed.

1. Introduction
Evidence exists indicating that individuals' causal beliefs and expectations regarding psychiatric disorders, such as depression, may well influence how they perceive treatment and engage with treatment (Cornwall, Scott, Garland, & Pollinger, 2005; Weich, Morgan, King, & Nazareth, 2007). In like fashion, individuals' beliefs about specific foods, eating behavior, and eating disorders may contribute to the development and maintenance of eating disturbances (Smith, Simmons, Flory, Annu, & Hill, 2007), to the likelihood that people will seek treatment or their preferences for specific treatments (Goldstein & Rosselli, 2003; McFarlane, Olmsted, & Goldbloom, 2005; Mond & Hay, 2008), and possibly to their engagement with, and response to, treatment (Hepworth, Paxton, & Williams, 2007; Mussell et al., 2000).

In a series of studies conducted in Australia, Mond et al. explored why only a minority of individuals with an eating disorder utilize health services specifically to treat their eating disorder (Mond, Hay, Rodgers, & Owen, 2007). They found that whereas most women in a general community population viewed bulimia nervosa (BN) as a serious and disabling condition that is difficult to treat, a significant minority of the respondents reported that the symptoms of BN “might not be too bad.” Moreover, those respondents who were more likely to have an eating disorder themselves were most likely to embrace this view (Mond, Hay, Rodgers, Owen, & Beumont, 2004c). Interviews with women in the community revealed that they favored seeking help from a general practitioner or dietician rather than a mental health specialist. Self-help interventions were also favorably regarded (Mond, Hay, Rodgers, Owen, & Beumont, 2004a).

Binge eating disorder (BED) has been researched less than BN. In a study of a community sample of men and women, Mond and Hay (2008) again found that general practitioners and dieticians were viewed as likely to be most helpful, with behavioral weight loss and self-help interventions as the treatments of choice. A majority of respondents were ambivalent about treatment outcome, and pessimistic about outcome in the absence of treatment. As in the case of beliefs about BN (Mond, Hay, Rodgers, Owen, & Beumont, 2004b), individuals in the community perceived BED to be a problem of depression or low self-esteem rather than an eating disorder per se (Mond & Hay, 2008).

Research in North America suggests that it is widely believed that eating disorders can be viewed as a form of addiction. Based on their survey research, Von Ranson and Cassin (2007) concluded that “addictions-based treatment approaches for eating disorders are used by approximately one-third of eating disorder treatment programs and practitioners” (p. 3). Similarly, laypersons commonly view eating disorders as an addiction to food (e.g., Overeaters Anonymous) (Cassin & von Ranson, 2007). The core tenet of the addiction model is that there are specific toxic foods that trigger binge eating. As a case in point, Avena, Rada, and Hoebel (2008) have recently argued that sugar can be addictive and cause binge eating. The inescapable goal of treatment deriving from an addiction model is that the individual...
must abstain from the addicting substance, be it alcohol or food like sugar (Wilson & Latner, 2001). Such a commitment to increased, rigid dietary restraint is at odds with empirically-supported treatment models of eating disorders (Fairburn, 2008).

In the study reported here, we assessed a random sample of members – both men and women – of a large health maintenance organization in the Northwestern United States to identify their specific beliefs about eating and eating disorders. Specifically, we were interested in whether or not members of this health plan believed that weight is primarily determined by heredity, that restricting food intake helps to reduce binge eating, that certain foods are addictive, that there are effective treatments for eating disorders, and that binge eating is a problem requiring treatment. A second aim was to explore the association between these beliefs and specific demographic variables, such as gender and age, as well as the association between these beliefs and personal experience with eating disorder symptoms.

2. Method

2.1. Participants and recruitment

Drawing from the membership roster, a random sample of plan members between the ages of 18 and 35 was established, as this is the population for whom epidemiological studies have shown the highest rates of binge eating disorders (Hoek & van Hoeken, 2003; Hudson, Hiripi, Pope, & Kessler, 2007). Eligibility criteria included having been insured for at least 12 months and being between 18 and 35 at the time of the random selection. Excluded from the sampling frame were individuals with diagnostic codes indicative of severe cognitive impairment (e.g., mental retardation), or current treatment for severe physical illness such as cancer. Also excluded were plan members whose records indicated that they opted out in general from being considered for any study recruitment.

Recruitment began in June 2004 and ended in July 2005. In all, 23,134 plan members were invited to participate in the study and 5522 returned a completed survey, a 24% participation rate (see Table 1 for descriptive statistics for this sample). A majority of survey respondents were white, non-Hispanic women aged 25–35 with at least some college education.

2.2. Instrument and procedure

Eligible health plan members first received a post-card inviting them to participate in a study on eating behaviors and body image, followed by a mailing of a brief questionnaire. The recruitment materials emphasized that the invitation applied to all recipients, regardless of whether they did or did not experience concerns with body image or eating. Participants could respond via a web link online (for which they received a $3.00 coffeeshouse gift card) or via pre-paid return envelope (no compensation was offered).

To assess beliefs about weight, eating, and eating disorders, participants were asked to indicate whether they believed each of the following statements to be True or False: (1) A major influence on a person's weight is heredity (genes); (2) Going on a strict diet helps people to have fewer binges; (3) There is good evidence that certain foods are addictive; (4) There are effective treatments to help people with an eating disorder; and (5) I don't think binge eating is a problem that requires treatment.

To assess eating disorder symptoms, the Patient Health Questionnaire (PHQ; Spitzer, Kroenke, Williams, & the PHQ Primary Care Study Group, 1999) eating disorder module was used. This module includes binary (yes/no) response items concerning binge eating and compensatory behaviors. Respondents were classified as binge eaters if they reported loss of control over eating an unusually large amount of food either once or twice a week over the previous three months. Participants were categorized as engaging in compensatory behaviors if they reported that they had often engaged in any of four compensatory behaviors in the last three months to avoid gaining weight after binge eating. These behaviors included making oneself vomit, taking more than twice the recommended dose of laxatives, fasting (i.e., not eating anything at all for at least 24 h), and exercising for more than an hour. In addition, one item adapted from the EDE-Q (Fairburn & Beglin, 1994) was included to assess dietary restriction. Participants indicated whether or not they consciously attempted to limit the amount of food eaten in order to influence shape or weight over the prior three months.

Participants reported their current height and weight, which were used to calculate their Body Mass Index (BMI). Participants also reported their gender, date of birth, race (7 categories), ethnicity (7 categories), and highest level of education (6 options ranging from 8th grade or less to more than 4-year college degree). Binary demographic categories were created by recoding racial, ethnic, and educational information into white (yes/no), Hispanic (yes/no), and high school graduate or less vs. some college or more.

2.3. Data analyses

Chi-square analyses were used to test for differences in the percent of respondents who expressed agreement with each statement for the demographic variables of gender, age, race, ethnicity, education level, and BMI as well as the behavioral variables of binge eating, compensatory behaviors, and dietary restriction. Additional chi-square analyses were used to explore potential relationships among item responses.

3. Results and discussion

Table 2 summarizes the percentages of respondents who agreed with the five attitudinal statements. Few of the respondents in our sample (7.2%) agreed with the statement “I don't think binge eating is a problem that requires treatment.” Nonetheless, differences among subgroups of respondents emerged. Rates of agreement were significantly higher among men, younger respondents, and the less educated. These findings are consistent with the literature indicating difficulties in recruiting adolescents (DeBar, Varborough, York, Wilson, & Clarke, 2008) and males (DeBar et al., 2009) for research studies on the treatment of eating disorders. Binge eaters did not differ significantly from non-binge eaters on this belief, a result somewhat at odds with Mond et al.’s (2004c) finding that individuals with an eating disorder were significantly more likely than non-eating disordered respondents to think that their problem was “not too bad.”
Most respondents (92.7%) also endorsed the view that “there are effective treatments to help people with an eating disorder.” Unfortunately, we did not assess if respondents favored some forms of intervention over others as in Mond and Hay’s (2008) research. Importantly, self-reported binge eaters were significantly less likely than non-bingers to agree that there are effective treatments. Similarly, individuals with extreme compensatory behaviors (self-induced vomiting, laxative misuse, fasting, or excessive exercise) also held a significantly more negative view of treatment effectiveness than those who did not engage in such compensatory behaviors. It is unknown whether or not these binge eaters and individuals who reported extreme compensatory behaviors had received previous treatment that proved unsuccessful. Nevertheless, it is possible that this negative attitude about treatment might account in part for the finding that individuals with eating disorders frequently do not seek treatment. These findings underscore the recommendation by Mond, Hay, Rodgers, and Owen (2006) that primary and secondary prevention programs for eating disorders need both to stress the negative psychological consequences of an eating disorder and to emphasize the availability of well-established evidence-based treatments for BN and BED.

Current models of eating disorders identify dysfunctional dieting as causally related to binge eating (Fairburn, 2008). A welcome finding from our data is that most respondents (85.8%) disagreed with the view that strict dieting is an effective means of controlling binge eating. Significantly, self-reported binge eaters did not differ from non-bingers in this regard. Even though 60.2% of respondents reported that they limited food intake to influence their body shape or weight, the vast majority (87.4% of this subset) still disputed that dieting is effective in reducing binge eating.

A striking finding is that 65.6% of respondents were of the opinion that certain foods are addictive. Whether specific foods (e.g., chocolate or sugar) can be considered addictive in the same sense as psychoactive drugs is a controversial topic (Hetherington, 2001; Hyman, 2007; Reid & Hammersley, 2001). Nevertheless, it is reasonable to assume that individuals who believe that certain foods are addictive may well interpret their eating problems as an addictive disorder. This belief conflicts with the empirically-supported conceptual model that underpins CBT (Fairburn, 2008) and its well-documented therapeutic efficacy (Wilson & Shafran 2005). In this treatment, patients learn to develop nutritionally balanced meals in which there are no “forbidden foods.” Patient beliefs about the nature of her eating disorder that contradict the rationale for CBT, as in this case, are addressed at the outset of therapy in developing a working model of what maintains the patient’s problems. Specific behavioral experiments are designed to encourage patients to test the validity of beliefs such as foods being “addictive” (Fairburn, 2008; Wilson, in press). A majority (69.43%) of those respondents who endorsed strict dieting as a means of controlling binge eating also believed that certain foods are addictive. However, no evidence exists that trying to abstain from certain “toxic” foods (e.g., Overeaters Anonymous) is effective in eliminating binge eating or treating any of the other core features of an eating disorder.

Several significant demographic differences emerged. On average, non-white participants differed significantly from white participants not only in thinking that binge eating does not require treatment, but also in agreeing less with the proposition that there are effective treatments. Moreover, non-white participants were more likely to endorse the erroneous notion that strict dieting can control binge eating. These data need to be interpreted cautiously given the small proportion of non-white individuals (11.3%, n = 584) in the sample. Collectively, however, these attitudes are consistent with evidence that individuals representing ethnic minorities have a higher drop-out rate from treatment for BED than white patients (Willey, Wilson, & Agras, 2008). Noteworthy also are the findings that the less well-educated (high school or less) respondents were significantly more likely to endorse beliefs that a strict diet reduces binge eating, that certain foods are addictive, and that binge eating does not require treatment.

Our study has several limitations. One is the limited assessment of beliefs about eating, eating disorders, and their treatment. Moreover, the assessment instrument used has not been validated. Whereas the research of Mond and his colleagues used vignettes to describe binge eating (Mond et al., 2004a), we relied on a questionnaire measure. Although the sample is representative of a large managed care organization in the Northwestern United States, the relatively small proportion of non-white participants in this particular setting limit the generalizability of the findings. Despite these limitations, the
research is strengthened by a relatively high percentage of male respondents, a group often excluded from research concerning eating disorders.

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