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Association of Body Mass with Dietary Restraint and Disinhibition

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The relationship of disinhibition and dietary restraint with body mass was studied in a sample of 293 women. Results suggested that higher body mass was associated with an interaction of disinhibition and dietary restraint. The association of disinhibition with higher body mass was moderated by increased dietary restraint. Symptoms of an eating disorder were more strongly associated with disinhibition than with dietary restraint. These results suggest that dieting may moderate the increased body mass associated with overeating. Psychological and eating problems associated with dietary restraint were found to be of less significance than those associated with disinhibition.

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The term dietary restraint has been used to describe a person's intent to restrict dietary intake in order to control body weight (Herman & Mack, 1975). The construct of dietary restraint has been used to explain the common observation that obese persons intend to diet yet frequently overeat and thus maintain a higher body weight. A central hypothesis of dietary restraint theory is that the intent to diet may be disrupted or "disinhibited" by certain events, e.g. dysphoric emotions, alcohol or the availability of appetizing foods (Ruderman, 1986). This disinhibition hypothesis is important because it explains why persons trying to restrict eating frequently overeat. Numerous laboratory investigations have found support for the loss of control hypothesis (Lowe, 1993) and recently this hypothesis has been extended to account for the binge eating observed in bulimia nervosa and non-clinical subjects (Polivy & Herman, 1985; Polivy *et al*., 1994; Ruderman, 1986).

One conclusion derived from this research is that dieting may have adverse psychological and behavioral effects upon certain individuals (Brownell, 1991; Brownell & Rodin, 1994). The adverse events associated with dieting range from binge eating (Polivy & Herman, 1985) to lowered total energy expenditure (Laessle *et al*., 1989). One consequence of these research findings has been increased concern about the benefits vs. costs of dieting to control obesity (Blundell, 1990; Brownell, 1991; Brownell & Rodin, 1994; French & Jeffery, 1994).

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Other researchers have questioned the hypothesized relationship between dietary restraint and overeating (Cooper & Charnock, 1990; Treasure, 1990). In response to conflicting results in this research literature, Lowe (1993) observed that dietary restraint may be a multidimensional construct including a history of dieting, current dieting and degree of sustained weight loss. Also, Westenhoefer, Pudel and Maus (1990) reported the independence of dietary restraint and disinhibition in a large sample of European women.

The investigation of Westenhoefer *et al*. (1990) is of special importance to the present investigation. Westenhoefer presented the results of two surveys of European women pertaining to body weight and caloric intake. Body mass index and caloric intake were analysed as a function of two scales of the Three Factor Eating Questionnaire (TFEQ; Stunkard & Messick, 1985). The two scales were Cognitive Restraint, which measures the intent to diet and actual dieting behavior (Allison, Kalinsky & Gorman, 1992), and Disinhibition, which measures overeating and binge eating in response to a variety of situations associated with loss of control of food intake (Stunkard & Messick, 1985). The results of this study showed that body mass index was predicted by an interaction of Cognitive Restraint and Disinhibition, such that low Restraint and high Disinhibition scores were associated with higher body mass. An interaction effect was also found for caloric intake, showing that high Restraint and low Disinhibition scores were associated with lower caloric intake and low Restraint and high Disinhibition scores were associated with higher caloric intake. One implication of these data is that Dietary Restraint and Disinhibition, as measured by the TFEQ, may have interactive influences upon obesity. Another implication is that dieting may serve to moderate the association of overeating with increased body mass.

A second observation of Westenhoefer *et al*. (1990) was that dietary restraint was not necessarily associated with problematic eating behavior. In a follow-up study, Westenhoefer (1991), reported that the Cognitive Restraint scale of the TFEQ had two subscales, which he called Rigid and Flexible Control (of eating). Rigid Control was positively correlated with Disinhibition scores, whereas, flexible control was negatively correlated with Disinhibition scores.

The present investigation was designed to replicate and extend the results of the earlier studies of Westenhoefer. The present study directly measured the body weight of subjects, as opposed to the self-reported survey data of the Westenhoefer *et al*. (1990) study, and used several measures of problematic eating habits and attitudes which have been validated for use with the eating disorders. A secondary purpose of the current study was to evaluate the association of Rigid and Flexible Control with Disinhibition and body mass. With this research design we sought to evaluate the association of Cognitive Restraint and Disinhibition with body mass and eating disorder symptoms.

METHOD

Subjects

A total of 301 women were recruited from the community and university populations in the Baton Rouge region. These subjects were recruited via media advertisements for a cross-sectional study of eating behavior. They were not recruited