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Psychometric properties of the Food Craving Inventory among obese patients with binge eating disorder

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Abstract

Objective: To examine the psychometric properties of the Food Craving Inventory [FCI; White, M. A., Whisenhunt, B. L., Williamson, D. A., Greenway, F. L., & Netemeyer, R. G. (2002). Development and validation of the food-craving inventory. Obesity Research, 10 (107–114)] in a group of obese patients with binge eating disorder (BED).
Method: Participants were 122 obese patients seeking treatment for BED who completed the FCI. Data from the original 28-item FCI were examined. The current study sample was then compared to a community sample of obese patients.
Results: Confirmatory factor analysis confirmed the 4-factor structure of the FCI. An improved model was found following the deletion of 3 items, yielding a 25-item questionnaire. Secondary analyses indicated differences in patterns of food cravings between BED patients and an obese comparison group.
Discussion: The current study confirmed the psychometric properties of the FCI for use with a group of treatment-seeking obese patients with BED. Collectively, the results imply that obese patients with BED may crave sweets to a heightened degree relative to other food classes.
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Binge eating, or eating unusually large amounts of food with a subjective sense of loss of control, is a core symptom of certain eating disorders (American Psychiatric Association, 1994) and is not

uncommon among treatment-seeking obese patients (Grilo, 1998). Models of binge eating disorder (BED) and binge eating have included food cravings as a potential trigger for overeating (Gendall, Joyce, Sullivan, & Bulik, 1998; Polivy & Herman, 1993). Frequent cravings for sweets (Greeno, Wing, & Shiffman, 2000) and carbohydrates (Van der Ster Wallin, Norring, & Holmgren, 1994) have been identified as antecedents to binge eating episodes. It has been suggested that measurement of specific food cravings may be useful in the assessment of disordered eating patterns among patients with BED (Pull, 2004).

The Food Craving Inventory (White, Whisenhunt, Williamson, Greenway, & Netemeyer, 2002) is a psychometrically valid self-report measure of specific food cravings. The questionnaire consists of 28 items measuring the frequency of cravings for specific foods. Craving is defined as "an intense desire for a specific food that is difficult to resist" (Weingarten & Elston, 1990, 1991; White et al., 2002). The FCI consists of 4 factors or subscales measuring cravings for high fats, carbohydrates/starches, sweets, and fast food fats, and also generates a total score. White et al. (2002), using the FCI, found that obese individuals report more frequent cravings for high fats than their normal-weight counterparts.

Since the FCI (White et al., 2002) was validated with a community sample of individuals of varying weight, the psychometric properties for use with obese patients with disordered eating require confirmation. The primary aim of the current study was to confirm the factor structure of the FCI among obese patients with BED. Secondary aims were (a) to explore patterns of food cravings reported by obese patients with BED, and (b) to compare findings for this treatment-seeking group of obese patients with BED to a convenience sample of obese individuals.

1. Method

1.1. Participants

1.1.1. Binge eating disorder group

Participants were 122 consecutively evaluated obese patients with BED who responded to advertisements for treatment studies. DSM-IV (APA, 1994) diagnoses were established using the Structured Clinical Interview for DSM-IV Axis I Disorders (First, Spitzer, Gibbon, & Williams, 1996). Exclusionary criteria included concurrent treatment for eating/weight or medical conditions that influence eating/weight (e.g., diabetes, thyroid problems, hypoglycemia). Of the 122 participants, 76.2% were women and 23.8% were men; 82% (n=100) were Caucasian, 12.3% (n=15) were African American, 4.9% (n=6) were Hispanic, and 0.8% (n=1) was Asian. Ages ranged from 18 to 59 (M=45.07, S.D.=8.34). Body mass index (BMI) averaged 37.81 (S.D.=5.57). All participants signed written informed consent.

1.1.2. Obese comparison group from original validation sample

Some data from the original validation study of the FCI (White et al., 2002) were included in selected analyses pertaining to our secondary aims. Participants from the validation study with a BMI greater than 30 (n=88) were selected to serve as an obese comparison group. It is unknown what proportion of this study group may have suffered from binge eating problems. This comparison group consisted of 66 (78.6%) women and 18 (21.4%) men; 51.2% (n=44) were Caucasian, 45.5% (n=40) were African American, and 2.3% (n=4) were from another ethnic group. Ages ranged from 19 to 79 (M=42.77, S.D.=11.35) and BMI averaged 36.01 (S.D.=6.01).