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References

1. Evers IM, ter Braak EWMT, de Valk HW, van der Schoot B, Janssen N, Visser GHA: Risk indicators predictive for severe hypoglycemia during the first trimester of type 1 diabetic pregnancy. *Diabetes Care* 25: 554–559, 2002
2. Bode B, Gross K, Rikalo N, Schwartz S, Wahl T, Page C, Gross T, Mastrototaro J: Alarms based on real-time sensor glucose values alert patients to hypo- and hyperglycemia: the guardian continuous monitoring system. *Diabetes Technol Ther* 6: 105–113, 2004

Prevalence and Associations of Binge Eating Disorder in a Multiethnic Population With Type 2 Diabetes

Binge eating disorder (BED) is a syndrome characterized by recurrent uncontrollable overeating (1,2), with prevalence rates of ~3% in the general population and 10- to 20-fold higher in patients seeking treatment for obesity (1,3). There are limited reports of BED in subjects with type 2 diabetes, particularly in minorities (4,5).

We conducted a pilot study to assess BED and its association with obesity, metabolic control, and depression in a triethnic (37% Hispanic, 40% non-Hispanic white, and 19% African American) population with type 2 diabetes (*n* = 140). We used the nine-item Questionnaire of Eating and Weight Patterns (QEWP), the Binge Eating Scale (BES), and the Beck Depression Inventory (BDI) to assess our study population.

On average, patients were (mean ± SD) 59.1 ± 11.1 years old and had a mean BMI of 34.5 ± 6.2 kg/m², diabetes duration of 10 ± 7.8 years, and HbA_{1c} (A1C) 7.7 ± 2.0%. Abnormal eating (one or

more positive responses) as per QEWP scoring criteria (based on DSM-IV) was 40% overall. When analyzed according to binge-eating status (present or absent), subjects positive for binge eating were younger (55.8 ± 11.2 vs. 61.3 ± 10.5 years, *P* = 0.008), had a greater BMI (36 ± 6.6 vs. 33.6 ± 5.8 kg/m², *P* = 0.039), and had a higher A1C (8.2 ± 2.2 vs. 7.3 ± 1.8%, *P* = 0.027) compared with those with negative responses. Furthermore, BES score, which assesses binge eating severity on a continuous scale, was significantly associated with A1C (*r* = 0.24, *P* = 0.021), BMI (*r* = 0.36, *P* = 0.001), and diastolic blood pressure (*r* = 0.22, *P* = 0.018). BES scores were higher in those with BDI scores ≥19 (suggestive of moderate to severe depression), regardless of BMI and degree of glycemic control. Logistic regression analysis showed that age <60 years (odds ratio 3.4, *P* = 0.018) and African-American ethnicity (6.20, *P* = 0.004) were independently associated with abnormal eating using the QEWP.

The prevalence of binge-eating behaviors appears to be elevated in overweight patients with type 2 diabetes, particularly when subjects are younger or African American. Acknowledging the limitations of questionnaires when compared with structured interviews, we suggest using the QEWP as a quick screening tool to detect abnormal eating habits in patients with type 2 diabetes. Patients may then be referred to the appropriate health provider, who can implement more comprehensive diagnostic evaluation and appropriate interventions (6).

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References

1. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington, DC, American Psychiatric Association, 2000

2. Yanovski SZ, Nelson JE, Dubbert BK, Spitzer RL: Association of binge eating disorder and psychiatric comorbidity in obese subjects. *Am J Psychiatry* 150:1472–1479, 1993
3. Bruce B, Agras WS: Binge eating disorder: a population-based investigation. *Int J Eat Disord* 12:365–373, 1992
4. Wing RR, Marcus MD, Epstein LH, Blair EH, Burton LR: Binge eating in obese patients with type II diabetes. *Int J Eat Disord* 8:671–678, 1989
5. Herpertz S, Albus C, Wagener R, Kocnar M, Wagner R, Henning A, Best F, Foerster H, Schulze Schleppinghoff B, Thomas W, Kohle K, Mann K, Senf W: Comorbidity of diabetes and eating disorders: does diabetes control reflect disturbed eating behavior? *Diabetes Care* 21:1110–1116, 1998
6. Celio AA, Wilfley DE, Crow SJ, Mitchell J, Walsh BT: A comparison of the binge eating scale, questionnaire for eating and weight patterns-revised, and eating disorder examination questionnaire with instructions with the eating disorder examination in the assessment of binge eating disorder and its symptoms. *Int J Eat Disord* 36:434–444, 2004

Waist-to-Height Ratio and BMI Predict Different Cardiovascular Risk Factors in Chinese Children

Recently, waist-to-height ratio (WHR) has been documented as a better indicator of obesity and cardiovascular risk than BMI in several different pediatric populations. In the present study, we, for the first time, compared the association of nine cardiovascular risk factors with BMI, waist circumference (WC), and WHR in Chinese children. A random sample of 389 Han and 272 Uygur ethnic children aged 7–18 years (mean ± SE 10.7 ± 3.2) were selected stratified by age, sex, and ethnicity from a school-based cross-sectional study performed in Xinjiang Uygur Autonomous Region (the prevalence of obesity was 2.5 and 5.4% for Uygur and Han, respectively). Uygur and Han are the two major ethnic groups in this region (45% for each, 2003 national census).

Body weight, height, WC, systolic blood pressure (SBP), diastolic blood pressure (DBP), fasting serum triglyceride, total cholesterol, HDL, LDL, glucose, and insulin were measured or determined

