

Obesity

DIABETES CARE

Motivational interviewing enhances weight loss and glycaemic control

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓✓✓

1 The authors of this US study set out to determine the usefulness of motivational interviewing as part of a weight-loss and glycaemic improvement trial in women with type 2 diabetes.

2 In total, 217 women were recruited: 38% of African-American origin, the rest were identified as white; mean BMI: $36.5 \pm 5.5 \text{ kg/m}^2$; mean age: 53 ± 10 years; mean duration of type 2 diabetes: 5 ± 5.8 years.

3 In groups of, on average, 14 individuals, participants took part in 42 sessions of weight management delivered by a multidisciplinary team of a behaviourist, nutritionist, exercise psychologist and diabetes educator. They were then randomly assigned to receive individual sessions of motivational interviewing or a standard control intervention that covered women's health topics.

4 Women in the motivational interviewing arm had lost significantly more weight at each time period than those receiving placebo but this difference decreased with time: 6 months $-4.7 \pm 0.45 \text{ kg}$ vs -3.1 ± 0.47 , respectively, $P=0.01$; 12 months -4.8 ± 0.59 vs -2.7 ± 0.62 , respectively, $P=0.02$; 18 months -3.5 ± 0.62 vs -1.7 ± 0.63 , respectively, $P=0.04$.

5 Glycaemic control significantly improved from baseline for both treatment groups ($P < 0.0001$); however, women in the motivational interviewing group improved their control significantly compared with control women ($P=0.002$).

6 Motivational interviewing can therefore be beneficial to women undergoing behavioural obesity treatment.

West DS, DiLillo V, Bursac Z et al (2007) Motivational interviewing improves weight loss in women with type 2 diabetes. *Diabetes Care* **30**: 1081-7

Motivational interviewing improves weight loss and glycaemic control in type 2 diabetes



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Type 2 diabetes is intimately tied in with weight gain and obesity; and weight loss is an important therapeutic goal for most people with type 2 diabetes. Experience from treating obesity (addressing eating habits and physical activity) is the cornerstone of successful weight management.

Behaviours are far from easy to change since they are formed of many years of deeply ingrained habits. In order to change these behaviours, it is usually necessary for us to understand their origins and to have a powerful reason to change. Therefore, cognitive behavioural therapy – which addresses origins of behaviours – and motivational interviewing – which involves identifying and achieving behavioural goals – are two complementary techniques in weight management. In this edition of the journal, all the abstracts selected illustrate, in various intriguing ways, how obesity often has its origins in altered behaviours or

harmful environments, and also how obesity often leads to poor health and time off work. However, there is far less experience on the behavioural treatment strategies in the realm of diabetes, although they may also be useful. The study by West and colleagues, abstracted alongside, suggests that motivational interviewing, delivered individually by clinical psychologists, enhances weight loss and glycaemic control in women with type 2 diabetes in the context of a weight control programme. While the result might not be that surprising, it confirms that traditional approaches to diabetes education are not fully effective and that the application of motivational interviewing techniques may further enhance weight loss and glycaemic control. Potential behavioural origins of weight gain, obesity, diabetes and poor glycaemic control need recognition if they are to be addressed. Therefore, there may be a place for the selective use of psychologically-based approaches such as motivational interviewing in diabetes clinics, at least in obviously motivated people. As with most behavioural interventions, the effect will wear off in time, unless it is regularly reinforced.

OBESITY



Parental overweight predicts daughters' increase in BMI

Readability	✓✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓✓

1 The authors set out to determine the association between overweight and disinhibited overeating in parents and accelerated weight gain in daughters.

2 A longitudinal study of 197 girls and their parents measured height and weight in order to calculate BMI.

3 The Eating Inventory was used to assess the parents' disinhibited eating behaviour. The daughters' disinhibited eating was measured using a behavioural protocol to assess eating in

the absence of hunger.

4 Girls were classified as having neither parent, both parents, the mother only or the father only as overweight.

5 The most rapid increases in BMI from 5 to 13 years of age were those with both parents overweight ($40.8 \pm 13.3 \text{ kg}$) compared with girls with neither parent overweight ($29.1 \pm 6.2 \text{ kg}$).

6 When both parents were overweight, girls were eight times more likely to be overweight at age 13 than those with neither parent overweight, controlling for their weight at the age of 5. They also had higher levels of disinhibited eating than all other groups.

7 This study supports the idea that family behaviours or genetic factors influence childhood weight gain, and that efforts to prevent obesity should target children of obese parents.

Francis LA, Ventura AK, Marini M, Birch LL (2007) Parent Overweight Predicts Daughters' Increase in BMI and Disinhibited Overeating from 5 to 13 Years. *Obesity* **15**: 1544-53

‘There is mounting evidence that community-level correlates of obesity exist and therefore, environmental and policy intervention strategies may reduce population-level obesity prevalence.’

‘Women who reported childhood sexual abuse were more likely to be obese or severely obese.’

INTERNATIONAL JOURNAL OF OBESITY

Neighbourhood environment predicts obesity risk

Readability	✓✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓

- 1 This study investigated the impact that neighbourhood environments have on the incidence of obesity.
- 2 Recreational facility access, land use, transportation infrastructure and aesthetics were assessed using cross-sectional telephone surveys (perceived) and street-scale environmental audits (observed).
- 3 Randomly selected urban residents (n=1032; 20% obese, 32% black and 65% female) participated.
- 4 The primary outcome was obesity versus normal weight. Logistic regression analyses were conducted to estimate the main indicators of obesity in the environment, controlling for demographic variables.
- 5 The adjusted odds ratios demonstrated that being obese was significantly associated with many aspects of the local environment. Perceived indicators included no nearby non-residential destinations (2.2), absence of sidewalks (2.2), unpleasant community (3.1) and lack of interesting sites (4.8).
- 6 Observed indicators of obesity were poor sidewalk quality (2.1), physical disorder (4.0) and presence of garbage (3.7).
- 7 Multivariate analysis showed that land use and aesthetics were the most robust predictors of obesity.
- 8 There is mounting evidence that community-level correlates of obesity exist and therefore, environmental and policy intervention strategies may reduce population-level obesity prevalence.

Boehmer TK, Hoehner CM, Deshpande AD et al (2007) Perceived and observed neighborhood indicators of obesity among urban adults. *International Journal of Obesity* 31: 968–77

OBESITY

Childhood sexual abuse is a risk factor for obesity

Readability	✓✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

- 1 A sample of 416 self-defined lesbians from the Chicago metropolitan area were interviewed about childhood (<18 years) sexual abuse (CSA) experiences.
- 2 Women were categorised as normal weight (BMI: <25.0 kg/m²), overweight (25.0–29.9 kg/m²) or severely obese (≥40 kg/m²).

- 3 CSA was reported in 31% of women and 57% had a BMI >25. Mean BMI was 27.8±7.2 and was significantly higher in those who reported CSA (29.4 vs 27.1; P<0.001).
- 4 Of those who reported CSA, 39% were obese compared with just 25% of the those who did not (P=0.004).
- 5 Women who reported CSA were more likely to be obese or severely obese. Odds ratios were 1.9 and 2.3, respectively, adjusting for age, ethnicity and education.
- 6 Understanding this association may help develop successful obesity interventions for this group of women.

Aaron DJ, Hughes TL (2007) Association of childhood sexual abuse with obesity in a community sample of lesbians. *Obesity* 15: 1023–8

INTERNATIONAL JOURNAL OF OBESITY

Obesity burdens healthcare system

Readability	✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓✓

- 1 A national survey in Canada examined the association between obesity and hospital admissions in 113603 adults >20 years of age.
- 2 Overnight stays as an inpatient during the past 12 months, length of stay, height and weight were recorded.
- 3 Individuals stayed in hospital for a median of 3 nights. The 12-month

cumulative incidence of inpatients was 6.6% for men and 10.4% for women.

- 4 The adjusted odds ratio for obesity associated with being an inpatient was 1.24 for men and 1.25 for women. This association was significant for any length of stay except 1 night for men.

- 5 There was also a 30% risk increase of being an inpatient in people who were underweight, but this association was only significant for stays of >7 nights.
- 6 Obesity contributed more than 4% of being an inpatient. In order to reduce the burden on healthcare systems, obesity must be targeted.

Chen Y, Jiang Y, Mao Y (2007) Hospital admissions associated with body mass index in Canadian adults. *International Journal of Obesity* 31: 962–7

OBESITY

Obesity epidemic increasing sick days

Readability	✓✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

- 1 British civil servants (2564 women and 5853 men; 35–55 years of age) on entry to the Whitehall II study (1985–8; phase 1) provided data on BMI, and medically certified (>7 days) and self-certified (1–7 days) annual leave.
- 2 After adjustment for employment grade, health-related behaviours and health status, overweight (BMI:

25–29.9 kg/m²) and obesity (BMI: >30 kg/m²) at phase 1 were significantly associated with short and long absences in both sexes. Compared with a BMI of 21–22.9, rate ratios were 1.13–1.51.

- 3 Obesity at age 25 predicted long absences and obesity at phase 1 predicted short and long absences regardless of gender.

- 4 Chronic obesity in men was a particularly strong predictor of long absences with a rate ratio of 2.61.
- 5 The problem of excess weight in the working population needs to be tackled to reduce sickness absence.

Ferrie JE, Head J, Shipley MJ et al (2007) BMI, Obesity, and Sickness Absence in the Whitehall II Study. *Obesity* 15: 1554–64