

Over- and undernutrition: challenges and approaches. 29 June–2 July 2009

Spinal clinic for obesity outpatient project (SCOOP): a pilot study

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Obesity in patients with spinal cord injuries (SCI) is an ongoing clinical and public health problem that often goes undetected and unmanaged. It is estimated that 24 000 individuals with SCI are overweight and obese in the UK⁽¹⁾. Epidemiological data suggest that patients with SCI are more likely to become obese or overweight when compared with able-bodied population (60% v. 40% respectively)^(2,3). Obesity in SCI is mainly a result of the sedentary lifestyle secondary to paralysis and change in body composition when compared with able-bodied individuals. The link between obesity and other chronic diseases such as type 2 diabetes, CVD and certain forms of cancer is well documented⁽⁴⁾. The consequences of an obesity epidemic include increased risk of premature death and it is estimated to cost the NHS £3.5 × 10⁹/year to treat obesity-related complications⁽⁴⁾. There is no obesity management clinic operating in UK spinal injuries centres. This project is the first in the UK that aims to assess the effectiveness of a dietitian-led weight-management programme in individuals with chronic SCI.

A total of nineteen individuals (23–73 years) with chronic SCI who were overweight or obese (BMI 28–45 kg/m²) were referred for consultation covering nutrition, exercise and cognitive behaviour therapy in three consultations over 3 months. Outcome measures included body composition from anthropometric measurements of BMI, mid upper arm circumference (MUAC), triceps skinfold thickness (TSF) and mid-arm muscle circumference (MAMC) and dietary assessment of nutrient intake by 7 d food diaries.

Of the twelve individuals who returned to follow-up seven (58%) reported that they had a family history of metabolic syndrome and six (50%) had one or more co-morbidities. Mean weight loss was 2.1 (SD 1.1) kg at week 4 and 3.2 (SD 3.7) kg at week 12. Analysis of the pre- to post-intervention differences (using *t* test) showed a significant reduction in weight (109.2 (SD 23.4) kg v. 105.1 (SD 23.1) kg; *P*=0.008) and BMI (37.8 (SD 6.49) kg/m² v. 36.6 (SD 6.9) kg/m²; *P*=0.011). No significant changes were found in MUAC (39.3 (SD 2.6) cm v. 39.1 (SD 2.83) cm; *P*=0.59), TSF (31.2 (SD 8.7) mm v. 27.2 (SD 7.1) mm; *P*=0.21) and MAMC (30.2 (SD 3.9) cm v. 30.4 (SD 4.8) cm; *P*=0.51). The 7 d food diary showed an average daily energy intake of 6.5 (SD 4.1) MJ (1565 (SD 982) kcal), which is 6% below the estimated requirement.

The findings of the present study suggest that the clinic may be able to help patients with SCI to achieve weight loss without compromising total lean body mass. Current guidance on nutritional requirement may be overestimated in the SCI population. Further research with a larger sample size is warranted in order to determine the effectiveness of the weight management clinic and the optimal nutritional requirements in individuals with SCI.

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