



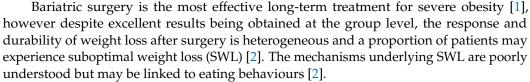
Abstract

Early Changes in Observed Eating Behaviours and Suboptimal Weight Loss in Gastric Bypass Patients: Preliminary Findings [†]

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Keywords: gastric bypass; suboptimal weight loss; energy intake; eating behaviours



The aim of this work was to identify if early changes in energy intake (EI) and eating behaviours at 1-year are associated with long-term weight outcomes 5-years post-surgery. Twenty-two patients, after gastric bypass (gender: $18 \, \text{F}$, 82.0%, $46.2 \pm 1.6 \, \text{kg/m}^2$, $46.1 \pm 2.6 \, \text{years}$), attended residential research appointments pre-surgery ($-1 \, \text{month}$) and at 12- and 60-months post-surgery. At each time point, EI (MJ) and eating behaviours (dietary energy density, eating speed, and number, size and duration of eating occasions) were determined over a 24-h period using the covert weighing of food and validated via closed circuit television. Body composition was measured using dual-energy X-ray absorptiometry and the percentage of total weight loss (%TWL) used to distinguish between patients who had suboptimal (<15% TWL) and patients with optimal weight loss (15–25%, or, >25% TWL) at 5 years post-surgery.

Briefly, 5 patients experienced SWL ($-9.2 \pm 1.8\%$), while 7 patients experienced 15–25% TWL ($-21.9 \pm 1.4\%$), and 10 patients experienced >25% TWL ($-35.0 \pm 1.8\%$). There were no differences in EI or dietary energy density between the three groups at baseline, or percentage changes at 1-year post-surgery (ANOVA; p > 0.54 and p > 0.48, respectively). Those experiencing SWL did not change their eating speed post-surgery, whilst those with optimal weight loss (>25%) reduced their eating speed (+7.2 \pm 0.53, +133.8 \pm 0.53%, -18.9 \pm 21.2%, for SWL [<15%], 15–25% and >25% TWL; p= 0.01). Those with optimal weight loss also decreased their EI per eating occasion at 1 year ($-53.2 \pm 2.8\%$, +88.9 \pm 105.0%, $-57.8 \pm 6.9\%$, for SWL [<15%], 15–25% and >25% for TWL; p= 0.01). These findings indicate that targeting interventions to the stratum of patients



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with such eating behaviours could enhance weight loss. Further work is required to verify findings and identify other modifiable eating behaviours in those most at risk of SWL.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

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