



## The presence of maladaptive eating behaviors after bariatric surgery in a cross sectional study: Importance of picking or nibbling on weight regain



Eva Conceição<sup>a,\*</sup>, James E. Mitchell<sup>b,c</sup>, Ana R. Vaz<sup>a</sup>, Ana P. Bastos<sup>a</sup>, Sofia Ramalho<sup>a</sup>,  
Cátia Silva<sup>a</sup>, Li Cao<sup>b,c</sup>, Isabel Brandão<sup>d</sup>, Paulo P.P. Machado<sup>a</sup>

<sup>a</sup> University of Minho, School of Psychology, Campus Gualtar, 4710-057 Braga, Portugal

<sup>b</sup> University of North Dakota, School of Medicine and Health Sciences, Fargo, ND, United States

<sup>c</sup> Neuropsychiatric Research Institute, 120 Eighth Street South, Fargo, ND 58103, United States

<sup>d</sup> University of Porto, Faculty of Medicine, Hospital de São João, Alameda Prof. Hernâni Monteiro, 4200-319 Porto, Portugal

### ARTICLE INFO

#### Article history:

Received 3 March 2014

Received in revised form 21 July 2014

Accepted 21 August 2014

Available online 28 August 2014

#### Keywords:

Bariatric surgery

Binge eating

Picking and nibbling

Maladaptive eating behaviors

Weight outcomes

### ABSTRACT

**Background:** Maladaptive eating behaviors after bariatric surgery are thought to compromise weight outcomes, but little is known about their frequency over time.

**Objective:** This study investigates the presence of subjective binge eating (SBE), objective binge eating (OBE) and picking and nibbling (P&N) before surgery and at different time periods postoperative, and their association with weight outcomes.

**Methods:** This cross-sectional study assessed a group of patients before surgery ( $n = 61$ ), and three post-operative groups: 1) 90 patients (27 with laparoscopic adjustable gastric band (LAGB) and 63 with Laparoscopic Roux-en-Y Gastric Bypass (LRYGB)) assessed during their 6 month follow-up medical appointment; 2) 96 patients (34 LAGB and 62 LRYGB) assessed during their one year follow-up medical appointment; and 3) 127 patients (62 LAGB and 55 LRYGB) assessed during their second year follow-up medical appointment. Assessment included the *Eating Disorders Examination* and a set of self-report measures.

**Results:** In the first ten months after surgery fewer participants reported maladaptive eating behaviors. No OBEs were reported at 6 months. SBE episodes were present in all groups. P&N was the most frequently reported eating behavior. Eating behavior (P&N) was significantly associated with weight regain, and non-behavioral variables were associated with weight loss.

**Conclusions:** This study is cross-sectional study which greatly limits the interpretation of outcomes and no causal association can be made. However, a subgroup of postoperative patients report eating behaviors that are associated with greater weight regain. The early detection of these eating behaviors might be important in the prevention of problematic outcomes after bariatric surgery.

© 2014 Elsevier Ltd. All rights reserved.

### 1. Introduction

Variability of outcomes after bariatric surgery is high, and some patients achieve suboptimal results or experience substantial weight regain particularly long-term follow-up (Magro et al., 2008). Research has reported a high prevalence of maladaptive eating patterns such as binge eating (de Zwaan, Hilbert, Swan-Kremeier, et al., 2010; Green, Dymek-Valentine, Pytluk, DI, & Alverdy, 2004; Kalarchian et al., 2002), loss of control eating (Burgmer, Grigutsch, Zipfel, et al., 2005; Colles, Dixon, & O'Brien, 2008; White, Kalarchian, Masheb, Marcus, & Grilo,

2010), and continuous snacking or “grazing” (Faria, Kelly, Faria, & Ito, 2009; Saunders, 2004), which have been linked to increased caloric intake, poorer outcomes, and ultimately failure of treatment (Bocchieri, Meana, & Fisher, 2002; Meany, Conceição, & Mitchell, 2014; Niego, Kofman, Weiss, & Geliebter, 2007). However, the literature on the frequency of these maladaptive eating behaviors over time and their association with weight outcomes is rather mixed.

This study aims to: 1) describe the presence of the different maladaptive eating behaviors: objective binge eating (OBE), subjective binge eating (SBE), and picking or nibbling (P&N), at pre-surgery and at several different points ranging from short-term to long-term follow-up, for different surgical procedure (laparoscopic adjustable gastric band (LAGB) and Laparoscopic Roux-en-Y Gastric Bypass (LRYGB)); 2) analyze the correlations among these different maladaptive eating

\* Corresponding author at: University of Minho, School of Psychology, Campus Gualtar, 4710-057 Braga, Portugal. Tel.: +351 253604650; fax: +351 253604224.  
E-mail address: econceicao@psi.uminho.pt (E. Conceição).

behaviors; 3) investigate the weight outcomes for patients receiving LAGB and LRYGB; and 4) test the association between eating behaviors, weight loss and weight regain for each bariatric procedure.

## 2. Materials and methods

### 2.1. Subjects and procedure

This study was conducted in one public hospital between January 2011 and December 2013. This cross-sectional study assessed a group of 61 bariatric surgery candidates, and three groups of postoperative bariatric patients who underwent LAGB or LRYGB: “Group 6 months” included 90 patients (27 LAGB and 63 LRYGB) assessed during their 6 month follow-up medical appointment; “Group 1 year” included 96 patients (34 LAGB and 62 LRYGB) assessed during their one year follow-up medical appointment; and “Group 2 years” with 127 patients (62 LAGB and 55 LRYGB) were assessed during their second year follow-up medical appointment.

Pre-operative patients were evaluated the day before surgery. Post-operative patients were assessed on the day of their medical appointments. A total of 326 post-operative patients were contacted, 1.2% ( $n = 4$ ) were not interested in participating and 5.8% (Conceição & Machado, 2010) were not interviewed because of time constraints. A final postoperative sample of 303 postoperative patients was assessed.

Altogether, participants in the study were 321 (88.2%) women and 43 (11.8%) men, age between 21 and 65 years old ( $M = 43.3$ ;  $SD = 10.4$ ). There were no significant differences on gender and age across the different assessment groups.

The Institutional Review Boards approved this research and all participants gave written consent.

### 2.2. Measures

#### 2.2.1. Weight outcomes

Body mass index (BMI) was computed for each participant. Pre-surgery and lowest post-surgery weight for the patients was obtained from hospital charts. Excess weight was calculated based on the metropolitan guidelines (Deitel, Gawdat, & Melissas, 2007). Percentage of excessive weight loss (% EWL), and excessive BMI loss (% EBMIL) were calculated using the following formulas:  $\% EWL = (\text{weight\_presurg} - \text{weight\_current}) / (\text{excessweight}) \times 100$ ; and  $\% EBMIL = ((\text{BMI\_presurg} - \text{BMI\_post}) / (\text{BMI\_presurg} - 25)) \times 100$ . In order to study weight regain, percentage of excessive weight regain (% EWR) and weight regain (WR) in kilograms were computed with the formulas:  $\% EWR = (\text{weight\_current} - \text{weight\_lowest}) / \text{excessweight} \times 100$ ; and  $WR = \text{BMI\_post} - \text{BMI\_lowest}$ . Significant weight loss was defined as  $\% EWL > 50$ , and significant weight regain as  $\% EWR > 15$ .

#### 2.2.2. Psychological assessment

**2.2.2.1. Face-to-face interview.** Diagnostic items of the bariatric version of the *Eating Disorder Examination*, the *EDE-BSV* (Fairburn, Cooper, & O’Conner, 2008), modified by de Zwaan, Swan-Kremeier and Mitchell, were used by three trained therapists to establish an eating disorder diagnosis and assess eating behaviors and problems. Namely: *Objective Bulimic Episodes (OBE)*—eating an objectively large amount of food with a feeling of loss of control. *Subjective Bulimic Episodes (SBE)*—eating an amount of food perceived as large by the person but not considered large by others, accompanied by the sense of loss of control. *Picking (or nibbling) (P&N)*—eating modest amounts of food in an unplanned and repetitious way, without a sense of loss of control. *Dumping*—(for patients who underwent malabsorptive procedures) intense discomfort after ingestions of highly carbohydrate foods. *Plugging*—problems with the small opening of the stomach becoming plugged with food. *Vomiting*

*related to weight*—vomiting used as a compensatory behavior to compensate for caloric intake in order to influence weight. *Vomiting not related to weight*—spontaneous or induced vomiting episodes that appeared after surgery, sometimes used to overcome the physical discomfort in response to intolerable foods, plugging, overeating, not chewing properly or eating too rapidly.

**2.2.2.2. Self-report questionnaires.** *Eating Disorder Examination Questionnaire (EDE-Q)* (Fairburn & Beglin, 1994): a 28-item questionnaire assessing eating disorder symptoms and associated psychological characteristics. Generates a total score and 4 subscales: restraint; eating concern; shape concern, weight concern.

*Outcome Questionnaire-45.2 (OQ45.2)* (Lambert, Burlingame, Umphress, et al., 1996): a 45-item questionnaire to assess general psychological distress.

*Beck Depression Inventory (BDI)* (Beck, Steer, & Garbin, 1988): 21 items that assess depression severity. Based on recommendations to adapt the BDI to the obese patients undergoing surgery, items 18 and 19 were removed (Hayden, Dixon, Dixon, & O’Brien, 2010).

*Obesity Disordered eating Questionnaire (ODE)* (Conceição & Machado, 2010): developed to assess a wide range of dysfunctional eating behaviors and eating attitudes frequently reported by obese population undergoing obesity surgery. (“*I have trouble controlling the urge to eat or nibble, between meals.*”; “*I cannot spend 2–3 consecutive hours without eating or nibbling.*”).

*Barratt Impulsiveness Scale (BIS-11)* (Patton, Stanford, & Barratt, 1995): a 30 items questionnaire developed to assess impulsivity.

*Body Shape Questionnaire (BSQ)* (Cooper, Taylor, Cooper, & Fairburn, 1987): a 34 item questionnaire to assess body and shape concerns. Respondents rate its answer in a 0 to 6 scale regarding feeling about their appearance over the past four weeks. It generates a total score with higher scores corresponding to clinically relevant concerns about weight and shape.

For all questionnaires, higher scores indicate increased symptomatology and Cronbach’s alpha was above 0.82.

### 2.3. Statistical analyses

Dichotomous variables were created reflecting the presence (or absence) of the target eating behaviors (e.g. OBEs, SBEs, P&N), when reported to be present at least once a week in the previous month. To examine the co-occurrence of these behaviors we calculated odds ratio (OR) and relative risk (RR). ANOVA was used to investigate differences between groups and correlation between continuous measures. GLM for gamma distributions (for % EWR) and for linear distributions (for % EWL) were used to investigate its association with eating behaviors and scores in self-report measures.  $P$  values  $< .05$  were considered significant. All analyses were conducted with PASW—22 for Windows.

## 3. Results

Overall, the 6 month groups (LAGB and LRYGB patients) reported the lowest frequency of each of the maladaptive eating behaviors. In particular, no OBE episodes were reported for either group. Additionally, no OBE episodes were reported in the different postoperative groups by the LRYGB patients, but LAGB patients reported the presence of OBE in the 1 year and 2 years groups. Despite rather low frequencies, SBE episodes were present in the different postoperative groups for both LAGB and LRYGB. Given the low frequency of binge eating episodes, patients reporting OBE and SBE were collapsed into the same LOC eating category for the subsequent analyses. Our intention was to capture the binge eating episode core feature—the sense of loss of control over eating—regardless of the amount of food eaten, as it has been suggested in other authors (Cooper et al., 1987). P&N was the most frequently reported eating behavior across all assessment groups, being the

Download English Version:

<https://daneshyari.com/en/article/10446859>

Download Persian Version:

<https://daneshyari.com/article/10446859>

[Daneshyari.com](https://daneshyari.com)