# Association between eating pathology with weight-loss outcome and its management

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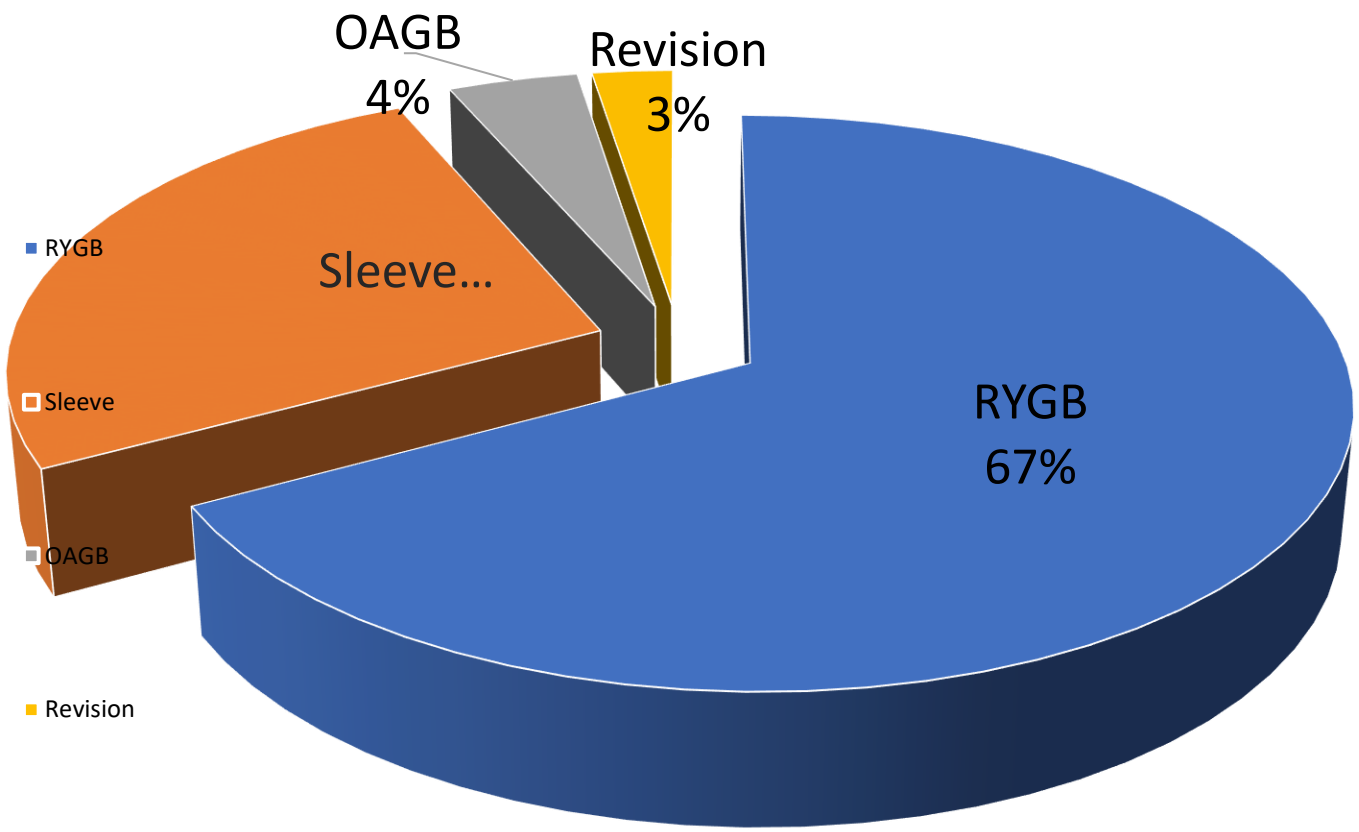
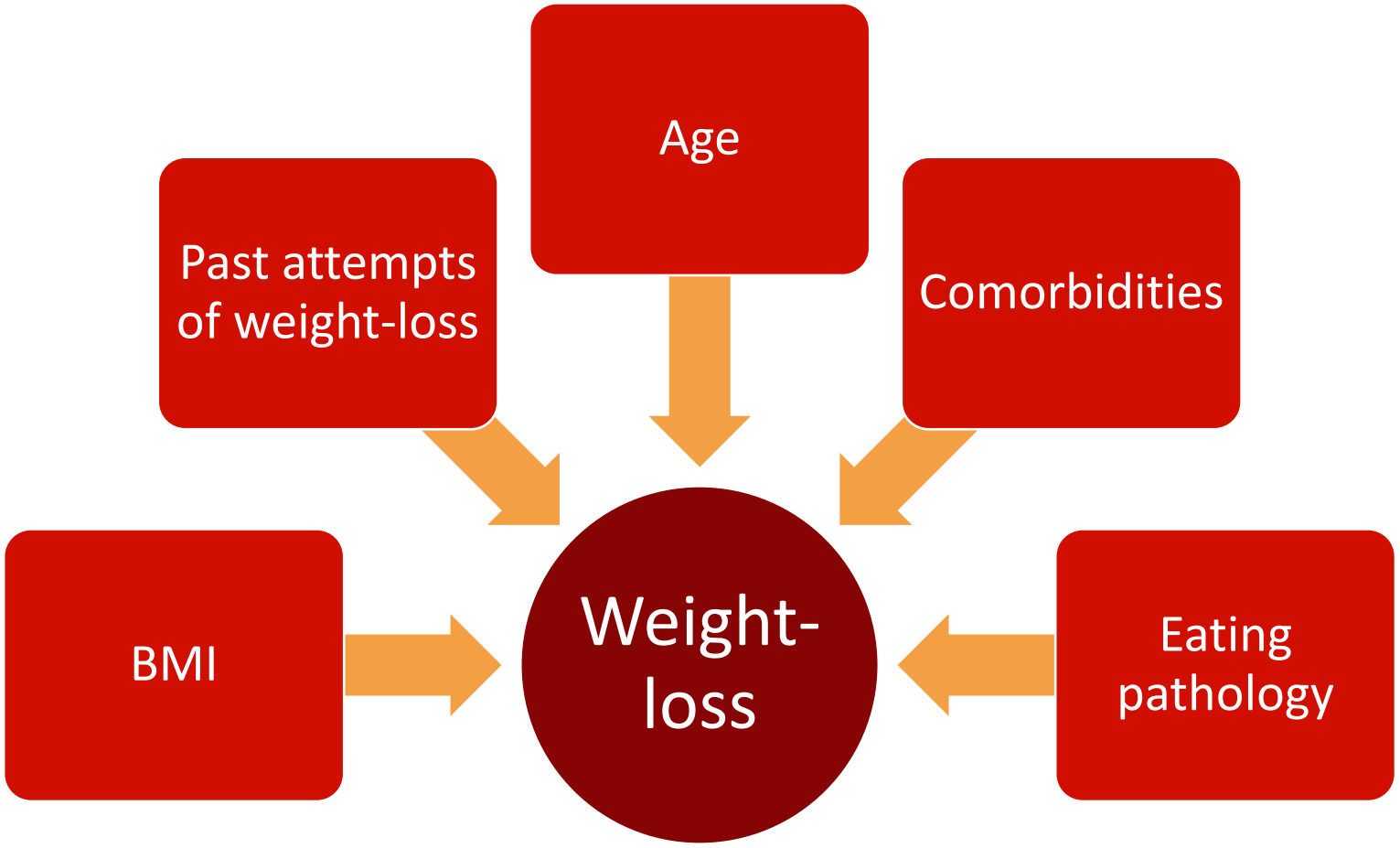
# Case Mix



- Conflict of interest: No
- Disclosure : None

# Factors affecting post-bariatric outcome (Non-surgical)



# Objectives of the study

1. To identify the impact of eating pathology on weight loss in bariatric patients one year after surgery

2. To determine the extent to which different eating pathologies hinder the weight loss process in bariatric patients.

# Types of eating pathology commonly found among people with obesity

| | |
|---|---|
| Binge eating | • Frequently consuming unusually large amounts of food in limited period of time and feeling that eating behaviour is out of control |
| Grazing | • Unplanned and Repetitive consumption of small amount food, usually unconscious and not triggered by hunger |
| Faulty eating pattern | • Combination of Volume eating + Fast eating + Long gaps |
| Emotional Eating | • Episode of compulsive eating triggered by emotional disturbances |

# Methodology

Total sample 1126 bariatric patient from January 2021 to August 2023

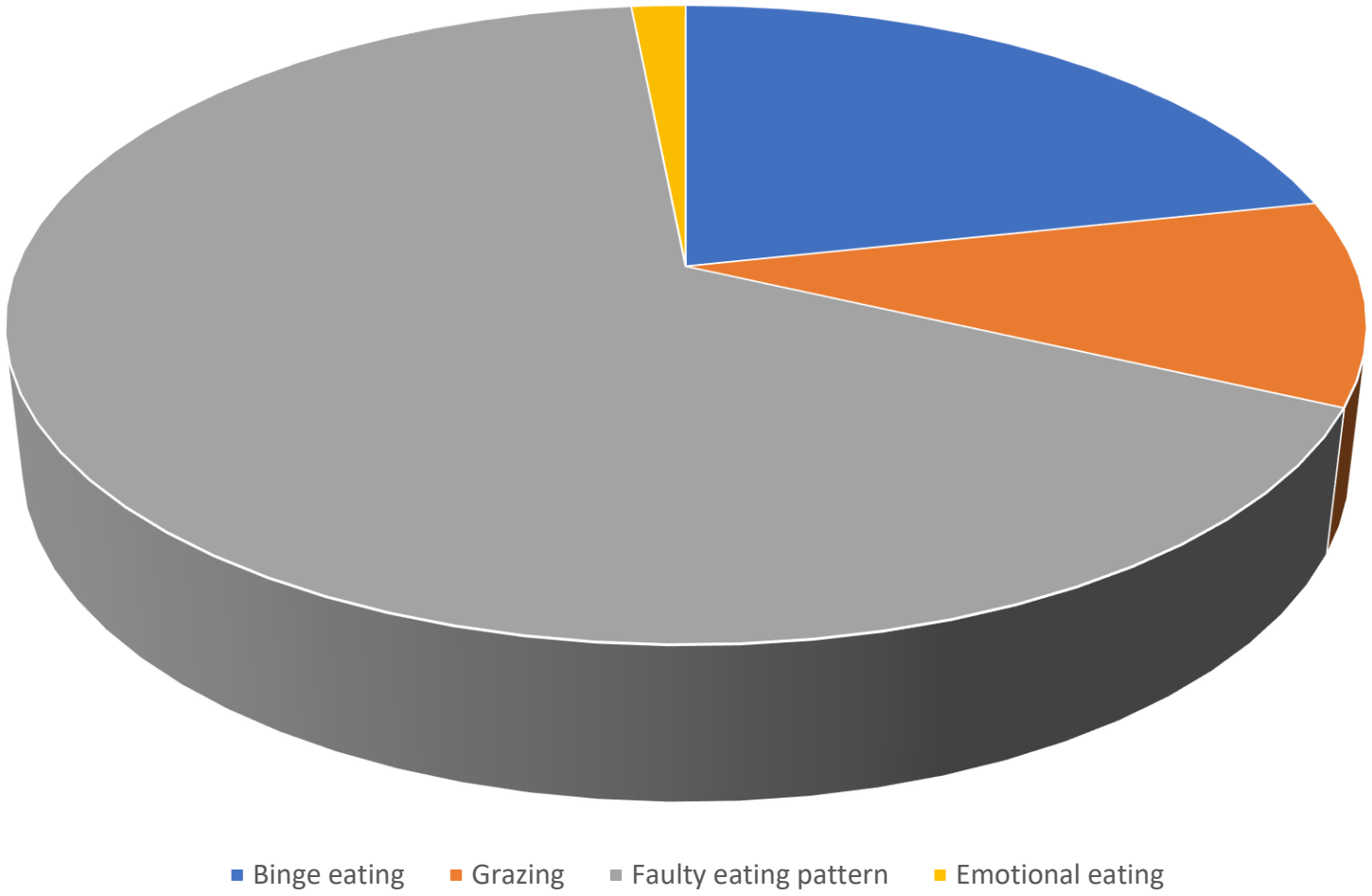
Preoperative psychological assessment comprehensive evaluation of psychological condition which includes motivation level, history of addiction, psychiatric history, personality traits

This assessment is semi-structured interview based on DSM-IV criteria

Categorized into different groups of eating pathology on the basis of preoperative psychologist assessment

Percentage of excess weight-loss (%EWL) was extracted at 1 year and compared using F-test and mean.

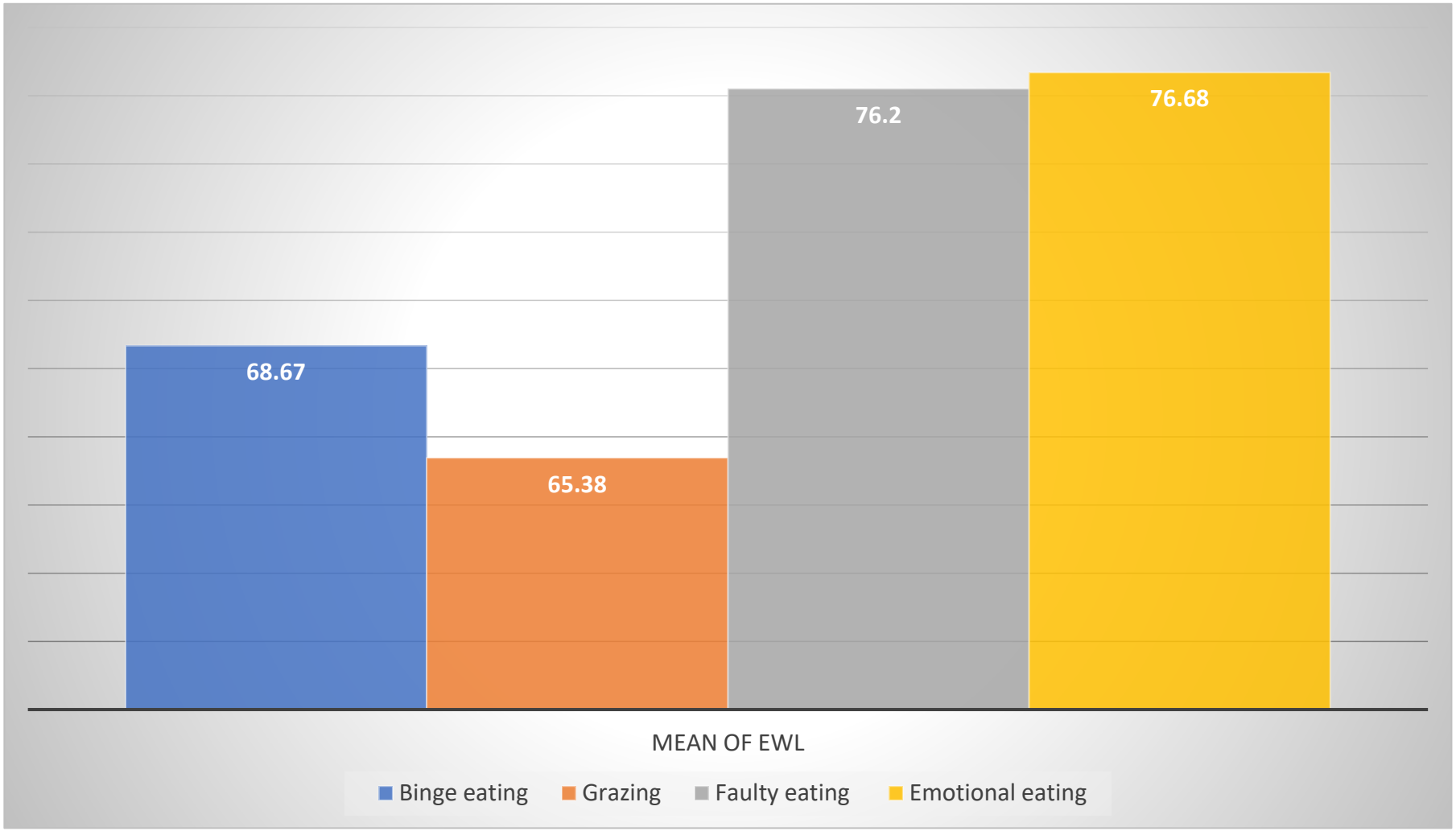
# Prevalence of eating pathology




| Total number of patient(N)= 1126 | | |
|---|---|---|
| Type of eating pathology | N | % |
| Binge eating | 190 | 16.9 |
| Grazing | 91 | 8.0 |
| Faulty eating pattern | 585 | 52.0 |
| Emotional eating | 260 | 23.1 |

# Results

| One way ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| EWL | | | | | | |
| | Sum of Squares | df | Mean Square | F | P value | Sig. |
| Between Groups | 16820.12 | 3 | 5606.70 | 20.344 | 2.60 | 0.01 |
| Within Groups | 309223.15 | 1122 | 275.6 | | | |
| Total | 326043.28 | 1125 | | | | |


68.67
65.38
76.2
76.68
MEAN OF EWL
Binge eating
Grazing
Faulty eating
Emotional eating

# Discussion

REVIEW

## Binge Eating, Binge Eating Disorder and Loss of Control Eating: Effects on Weight Outcomes after Bariatric Surgery

Gavin Meany[1], Eva Conceição[2] & James E. Mitchell[1,3]*

[1]Department of Clinical Neuroscience, University of North Dakota School of Medicine and Health Sciences, Fargo, North Dakota, USA
[2]Universidade do Minho, Braga, Portugal
[3]Neuropsychiatric Research Institute, Fargo, North Dakota, USA

**Table 1** Description of studies included in the review

| | | | | | | | Behaviour measured[c] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Pre-surgery | | Post-surgery | | Post-surgery[c] |
| Year | Author(s) | Site | Procedure | *N* | Mean[a] Duration F/U | Assessment[b] | BE/BED | LOC | BE/BED | LOC | BE/BED/LOC predictive of ↓ weight loss |
| 1992 | Rowston et al. | University of London | BPD | 16 | 2 years | BITE | — | — | — | — | Yes |
| 1994 | Pekkarinen et al. | Helskinki | VBG | 27 | 5.4 years | BES/BITE | — | — | 37% | — | Yes |
| 1996 | Hsu et al. | Tufts | VBG | 24 | ≤3.5 years | EDE | 38% | — | — | 21% | Yes |
| 2001 | Mitchell et al. | University of North Dakota | RYGB | 78 | 14 years | Interview M-FED (SCID criteria) | 49% | — | 12% | — | Yes |
| 2002 | Kalarchian et al. | University of Pitt | RYGB | 99 | >2 < 7 years | EDE-Q | — | — | — | 46% | Yes |
| 2003 | Guisado & Vaz | Extremadura | VBG | 140 | 18 months | BES | — | — | 18% | — | Yes |
| 2004 | Larsen et al. | Nijmegen | Band | 157 | 34 months. | BES | 55.9% | — | 37.4% | — | Yes |
| 2007 | Scholtz et al | University of London | LAGB | 37 | 5 years. | Interview/EDE | 17% | 13% | 10% | 8% | Yes |
| 2008 | Colles et al. | Monash | Band | 129 | 12 months. | QEWP-R/Interview | 14% | | 3% | — | Yes |
| 2010 | White et al. | Yale | RYGB | 361 | 1, 2 years. | EDE-Q | — | 61% | — | 36%/39% | Yes |
| 2010 | de Zwaan et al. | University of North Dakota | RYGB | 59 | 2 years. | Interview EDE-BSV | 29% | | | 25% | Yes |
| 2010 | Koffman et al. | Yeshiva New York | RYGB | 497 | 3–10 years. | QEWP-R | — | — | 27%/18% | 50% | Yes |
| 2011 | de Man Lapidoth et al. | Sweden | Variable | 102 | 3 years. | EDE-Q | 17.6% | — | 28.4% | — | No |
| 2012 | Beck et al. | University South Denmark | RYGB | 45 | 2 years. | 'BE Survey' | — | — | — | — | Yes |
| 2012 | Wood et al. | University of Surrey | LAGB | 33 | 6 months | EDDS | 50% | — | 7% | — | Yes |

[a]Duration from surgery to follow-up assessment
[b]Assessment instrument used: BITE, Bulimia Investigatory Test, Edinburgh; BES, Binge Eating Scale; EDE, Eating Disorders Examination; M-FED, McKnight Follow-up for Eating Disorders; EDE-Q, Eating Disorders Examination-Questionnaire; Interview, clinical interview; QEWP-R, Questionnaire on Eating and Weight Patterns-Revised; 'BE Survey', Instrument constructed for this purpose; EDDS, Eating Disorders Diagnostic Scale.
[c]BE, Binge eating; BED, Binge eating disorders; LOC, Loss of control eating.

## Snack-Eating Patients Experience Lesser Weight Loss after Roux-En-Y Gastric Bypass Surgery

Silvia Leite Faria · Emily de Oliveira Kelly · Orlando Pereira Faria · Marina Kiyomi Ito

## Grazing Behavior Hinders Weight Loss in Long-Term Post Bariatric Surgery: a Cross-Sectional Study

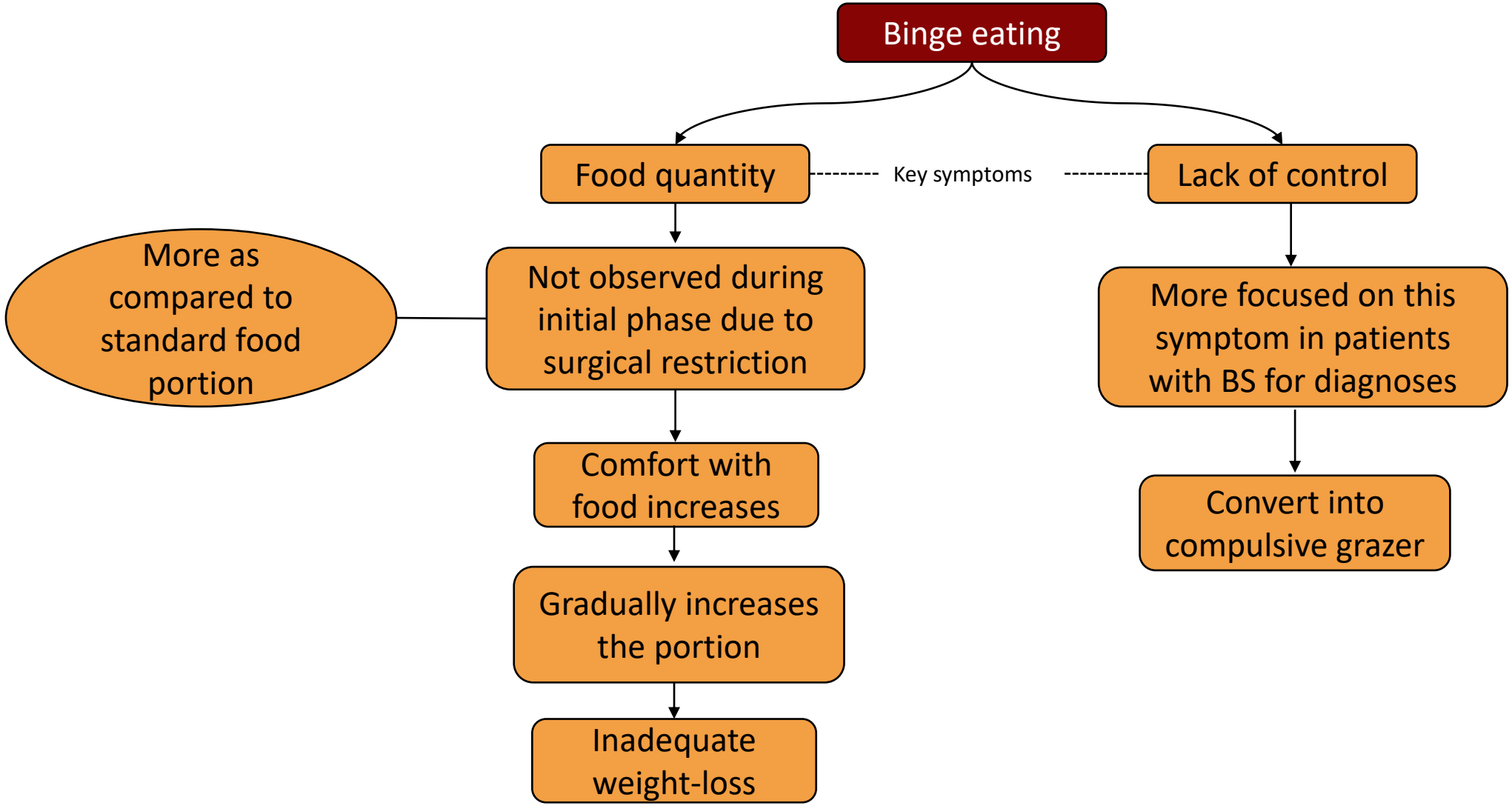
Larissa Cristina Lins Berber[1] · Mariana Silva Melendez-Araújo[1] · Eduardo Yoshio Nakano[2] · Kênia Mara Baiocchi de Carvalho[1] · Eliane Said Dutra[1]

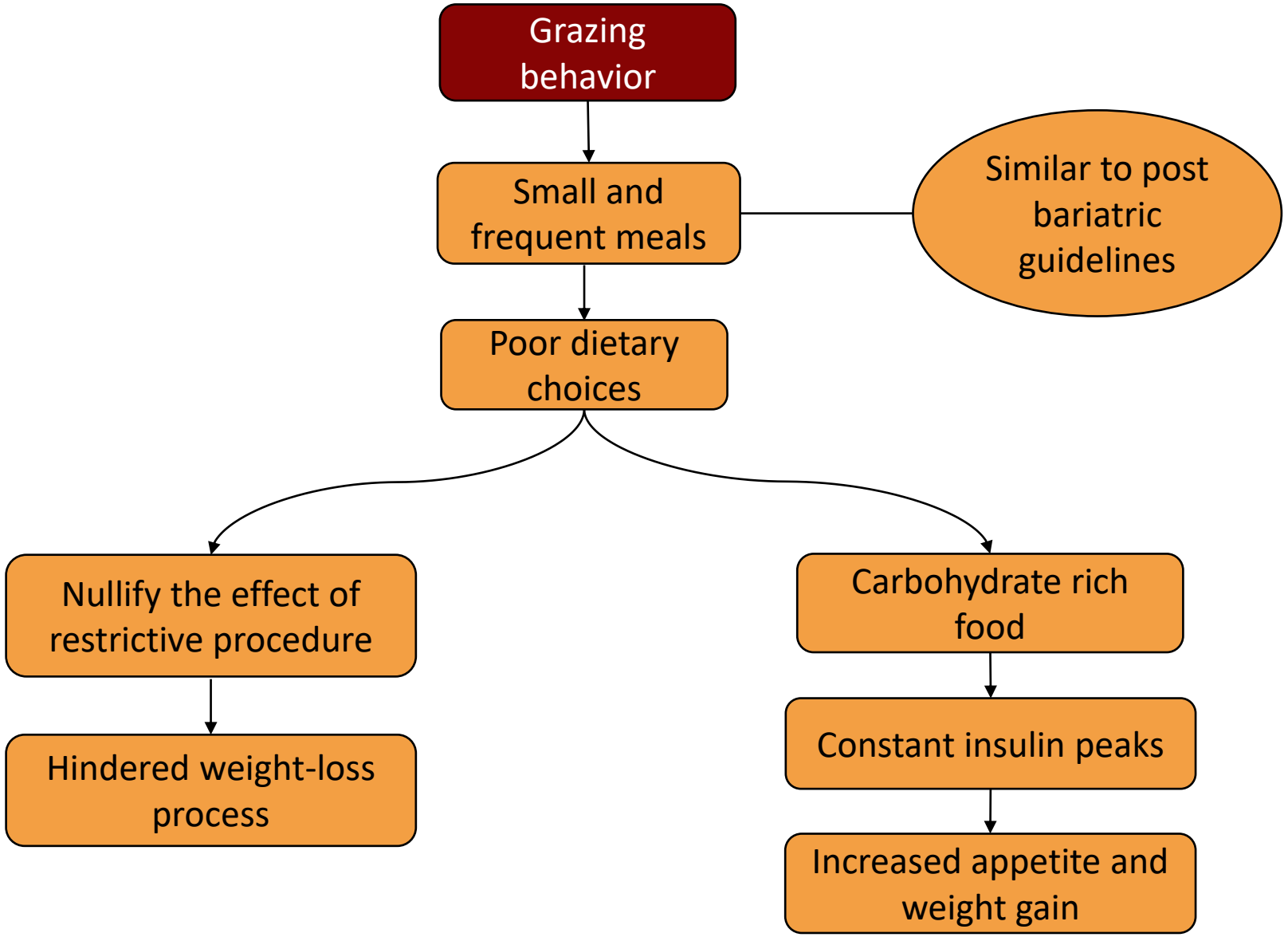
## Grazing and Loss of Control Related to Eating: Two High-risk Factors Following Bariatric Surgery

Susan L. Colles[1], John B. Dixon[1] and Paul E. O'Brien[1]

## Maladaptive Eating Patterns, Quality of Life, and Weight Outcomes Following Gastric Bypass: Results of an Internet Survey

Michele D. Kofman[1], Michelle R. Lent[1] and Charles Swencionis[1–3]


Binge eating
Food quantity
Key symptoms
Lack of control
More as compared to standard food portion
Not observed during initial phase due to surgical restriction
More focused on this symptom in patients with BS for diagnoses
Comfort with food increases
Convert into compulsive grazer
Gradually increases the portion
Inadequate weight-loss


Grazing behavior
Small and frequent meals
Similar to post bariatric guidelines
Poor dietary choices
Nullify the effect of restrictive procedure
Hindered weight-loss process
Carbohydrate rich food
Constant insulin peaks
Increased appetite and weight gain

# Conclusions

Eating pathologies have association with weight-loss outcome after bariatric surgery.

Among other eating pathology, Grazing behavior has more significant impact on weight-loss, which is followed by binge eating.

To improve overall weight-loss journey, it is necessary to adopt holistic approach, which include comprehensive management of eating pathology.

# Management


Cognitive Behavior Therapy
Dialectical Behavior Therapy
Interpersonal Therapy
Motivational Intervention
Mindful Based Intervention
Group Therapy
Psychological Intervention

# Cognitive Behavior Therapy

| | |
|---|---|
| Cognitive restructuring | • Distorted thoughts related to food, body image, self-worth<br>• Identify and replace with realistic thoughts |
| Behavior modification | • Self-monitor eating habits through food diaries<br>• Plan meals, avoid high-risk situations, establish regular eating schedule |

# Dialectical Behavior Therapy

| | |
|---|---|
| Mindfulness | • Teach patients to be present and aware<br>• Help recognize emotional triggers |
| Distress Tolerance | • Develop coping mechanisms for distress<br>• Use distraction, self-soothing, crisis survival |
| Emotional Regulation | • Manage and change intense emotions<br>• Label emotions, reduce vulnerabilities, increase positive emotions |

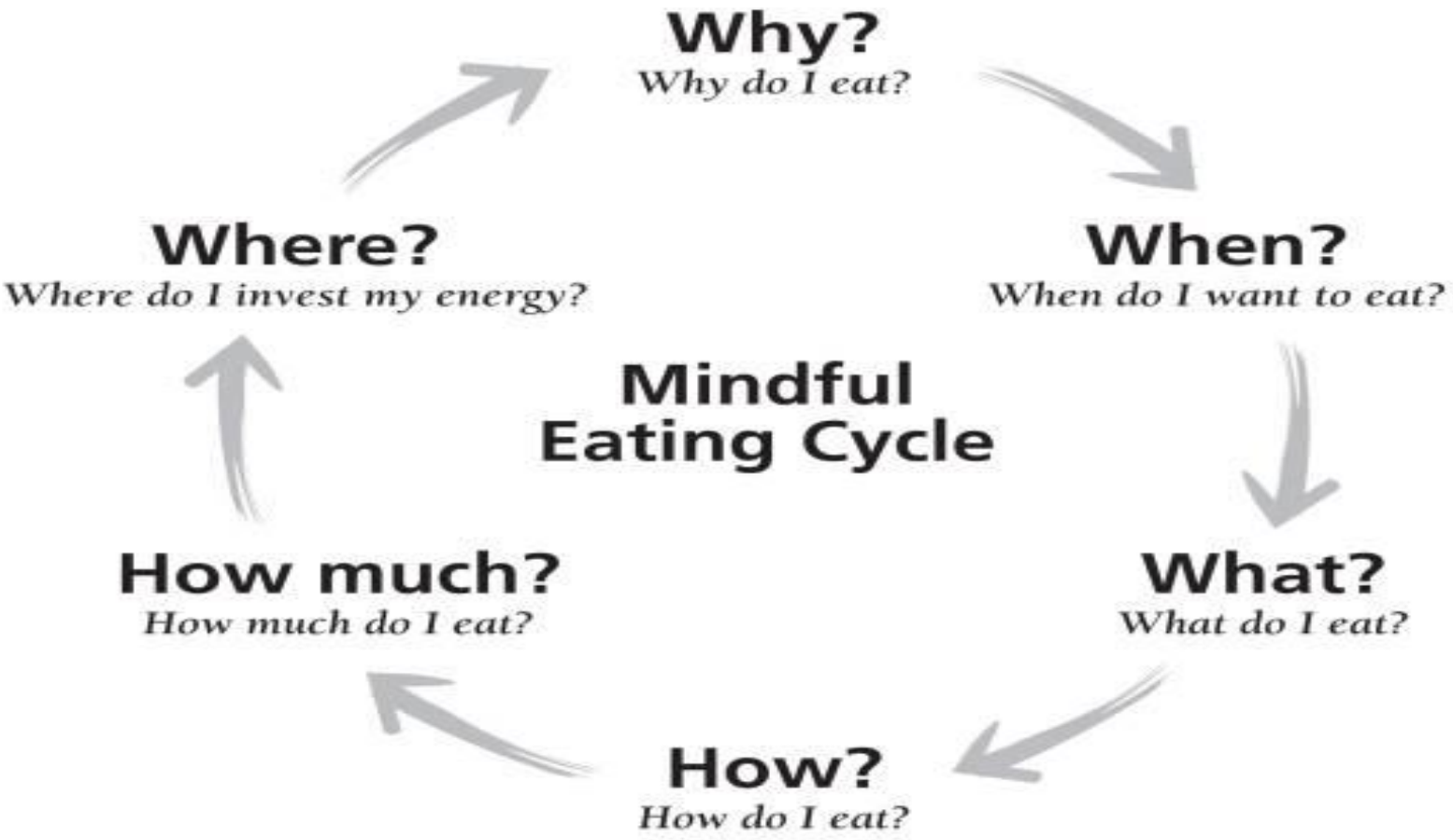
# Interpersonal Therapy

| | |
|---|---|
| Improving communication | • Unresolved interpersonal issues that contribute to their eating behavior<br>• Helps to identify these negative thought patterns and replace them with more realistic one |
| Building social-support | • Supportive relationship can buffer against the stress that triggers disordered eating.<br>• Help to seek support from others and how to give in the way that feels comfortable and beneficial. |

# Motivational Intervention

| | |
|---|---|
| Exploring Ambivalence | • Help to resolve conflicts regarding changing their eating habits<br>• Explore both sides of this ambivalence- the reasons for change and the reasons for staying the same |
| Build Self-efficacy | • Focuses on strengthening confidence in their ability to make and sustain change<br>• Identification of past success and using these a foundation |
| Setting Goals | • Guides in setting realistic and achievable goals |

# Mindful Based Intervention



# Limitation and Future Scope

| | |
|---|---|
| This study includes only **short-term data** (one year post op), so it doesn't asses the effect on weight maintenance and weight- gain beyond this period. | The study could be extended to include **long-term follow-up** (at 2, 5, and 10 years post-op) to assess the impact of eating pathology on weight regain. |
| The **absence of a control group**, such as patients without eating pathology, restricts the study's ability to make comparisons. | To obtain more comprehensive results, future research could include an **additional comparison group**. |
| While all patients received some form of psychological intervention aimed at addressing eating pathology, this intervention was primarily applied to those whose eating patterns raised significant concerns regarding their post-surgery adaptation. | For better insights, **two distinct groups** could be formed: one that receives targeted psychological intervention for eating pathology and another that does not receive any intervention. |

# Thank you