

# **The importance of Food addiction in patients with binge eating disorder two years after sleeve gastrectomy surgery**

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# Background

- Some individuals do not experience any significant weight change after the bariatric surgery
- It is very important to identify the factors associated with the negative outcome of obesity surgery
- Maladaptive eating behaviors such as food addiction (FA) and binge eating disorder (BED)





# Definitions

## Binge eating disorder (BED)

- Binge eating

Overconsumption of abnormally large amounts of food in disparate period of time, with a sense of loss of control (LOC)

- BED

Frequent binge eating without compensatory behaviors

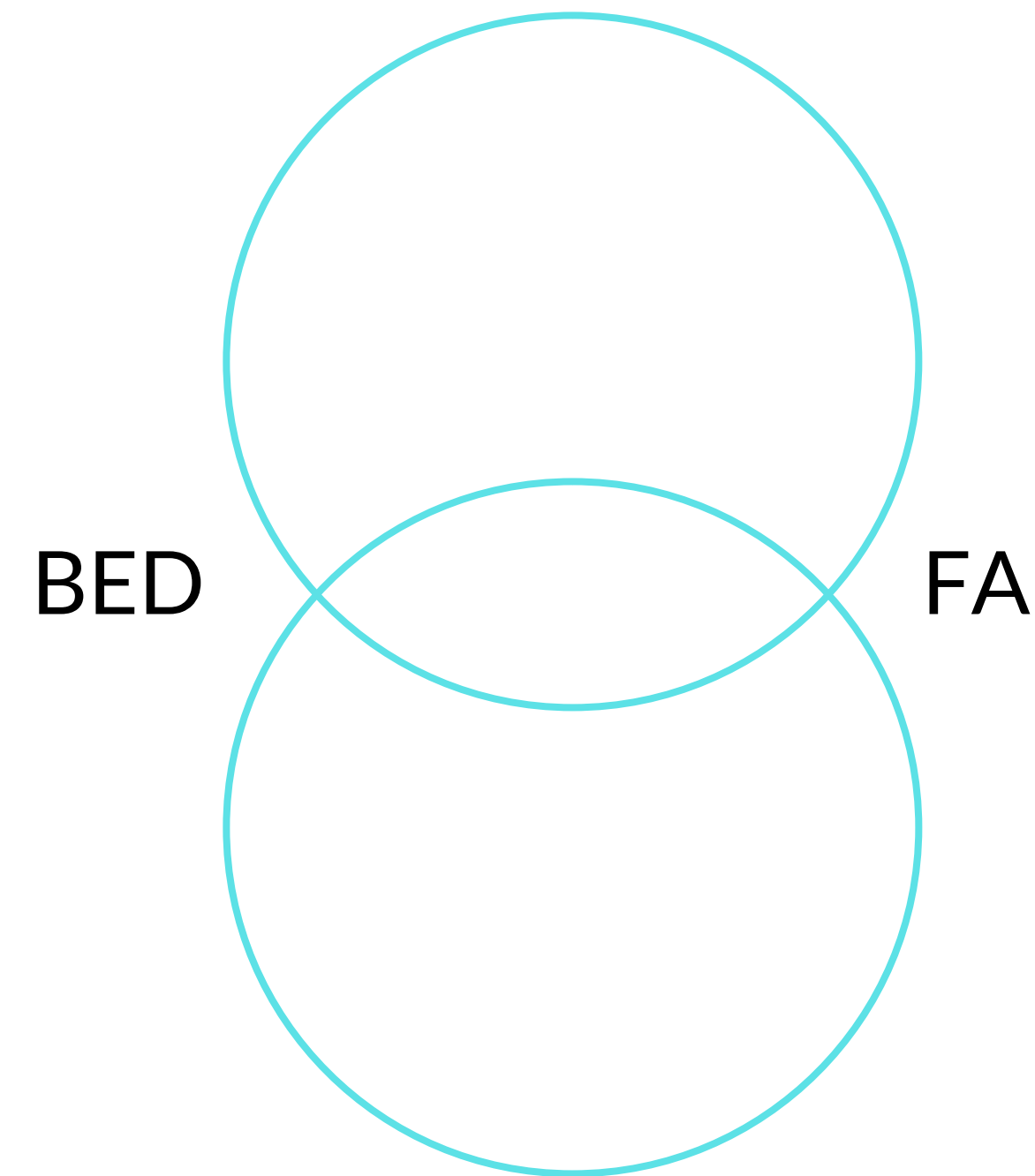
## Food addiction disorder (FA)

- High consumption of particular food items such as fat, sugar and salt, leading to unusual behavioral patterns like poor self-control over eating

# Research Topic

- 61.2% of BED, met criteria for FA
- Co-occurrence is represent a more severe subgroup with:

Greater levels of negative effect,  
Emotions dysregulation,  
Lower self-esteem,  
Elevated eating disorder psychopathology,  
Greater depressive symptoms,  
Diminished functioning



# Research Topic

- Decreasing trend of problematic eating behaviors such as FA and BED is not stable postoperatively and these disorders remain problematic after the operation or even tend to increase over years
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- The existing evidence for co-occurrence of BED and FA, based on observations up to 6 months post-sleeve gastrectomy, is nearly 18%





# Hypotheses

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- How prevalent are the co-occurrence of BED and FA two years after BS ?
- Are the co-occurrence of BED and FA associated with weight loss and body composition changes, two years after BS ?
- Are the co-occurrence of BED and FA associated with abnormalities in serum levels of zinc & magnesium & iron & ferritin, two years after BS ?

# Research methods

Medicine is the science and practice of treating, preventing

- 120 patients with binge eating disorder who had undergone LSG two years prior to the study were enrolled.
- From nutrition clinics of two referral university hospitals and one private hospital
- The exclusion criteria:
  - Pregnancy, breastfeeding
  - Substance addiction
  - A history of menopause dysregulation, chronic diseases such as gastrointestinal, liver, or kidney disorders; diabetes mellitus; cardiovascular diseases; malignancy and any inflammation related diseases

# Research methods

## **BED**

- DSM-5

## **FA**

- Yale Food Addiction Scale (YFAS) questionnaire

## **Body composition**

- Body impedance analyzer (BIA)



# Results

**FA was diagnosed in 50 of 120 patients with BED (41.66%) two years after LSG**

**Higher weight (p=0.01), and FFM (p=0.002)**

Lost more kilograms of FFM (p=0.003)

Lower FM loss percentage (% of weight loss) (p=0.04)

Higher FFM loss percentage (% of weight loss) (p=0.04)

**FA patients (vs. non-FA):**

Lower serum levels of Magnesium (p=0.02)

Higher serum levels of ferritin (p=0.04)

# Implication

BED is more associated with addiction in 2 years after LSG comparing to 6 months post LSG

- Low self-esteem
- Dysregulation/negative emotions
- High reward dependence

FFM loss of more than 22-25% may contribute to:

- Decreases in Resting Energy Expenditure,
- Loss of bone density,
- Lower quality of life

Excess FM has been associated with:

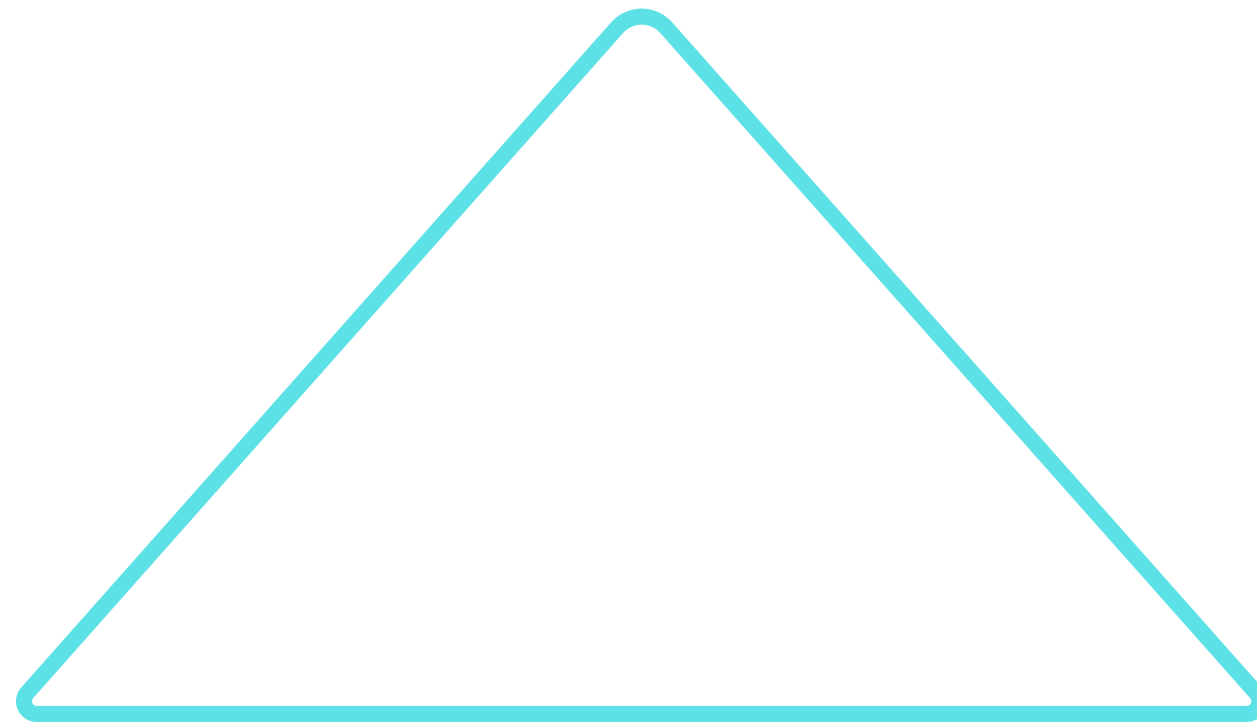
- obesity related-comorbidities such as:  
Metabolic Syndrome,  
Cardiovascular disease



# Implication

Lower serum levels of magnesium

Higher weight &  
poor weight loss outcome



Higher levels of inflammation

# Conclusion

- In general, the results of this study confirmed the concept that food addiction is important in BED patients after bariatric surgery because of its prevalence and its potential association with negative long-term outcomes following LSG. Thus, special attention should be paid to postoperative co-occurrence of BED and FA.

# Study limitations


- Only LSG operation were studied in this study
- Clinical signs that associated with magnesium, zinc and iron dysregulations should be evaluated alongside the serum levels.
- The cross-sectional design of this study does not prevent any causal relationship




# Thank You

For your attention

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