

# BARIATRIC SURGERY AND WEIGHT REGAIN: BIBLIOMETRIC ANALYSIS

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### **Presentation Flow**

Introduction Method Results Summary





#### INTRODUCTION

- As we know that, bariatric surgery has proven to be an effective tool for sustained weight loss and improved health in individuals with severe obesity.
- However, weight regain after bariatric surgery is a common concern that can impact long-term success.

Weight gain





### INTRODUCTION

• The general metrics to assess the success of the surgeries includes calculating % of excessive weight loss (EWL) (>50%), % of total weight loss (TWL), and % of weight regain post-surgery.



### CAUSES OF WEIGHT REGAIN FOLLOWING BARIATRIC SURGERY ARE MULTIFACTORIAL

- Gastrointestinal, hormonal, and genetics factors
- Gender, ethnic, and racial factors
- Behavioral, dietary, lifestyle, and psychological factors
- Performed Weight loss procedure as a technique and individual needs of the patient.





### INTRODUCTION

 Weight regain is described in approximately 30% of patients' postbariatric surgery (T. C. Cooper et al., 2015; Karmali et al., 2013; Keith et al., 2018; King, Hinerman, & Courcoulas, 2020).





### AIM OF THIS STUDY

• The study aims to define clusters of topics related to weight gain after bariatric surgery and to uncover the conceptual development in the field over the historical process.



### Research Questions

- What is the annual publication change rate of articles on weight gain after bariatric surgery?
- Who are the most productive authors, countries, institutions, and journals in the field of weight gain after bariatric surgery?
- What are the results of the citation analysis regarding weight gain after bariatic surgery?
- What are the most commonly co-occurring words and keywords in the context of weight gain after barfactic surgery?



### **METHODS**

A search was conducted on the Web of Science database using the keywords "bariatric surgery" and "weight gain" without any year limitations.





The distribution of publications and citations in the field of bariatric surgery and weight regain was analyzed according to years, as well as the distribution of publications by journals, research areas, and countries.

Co-authorship, co-occurrence, co-word and co-citation were also examined.

The "VOSviewer" program was utilized for conducting the analysis.





### **METHODS**

The study included articles published in English, excluding articles in early access, conference proceedings, editorial pieces, grey literature, books, and book chapters.

Duplications were identified and removed from the analysis.



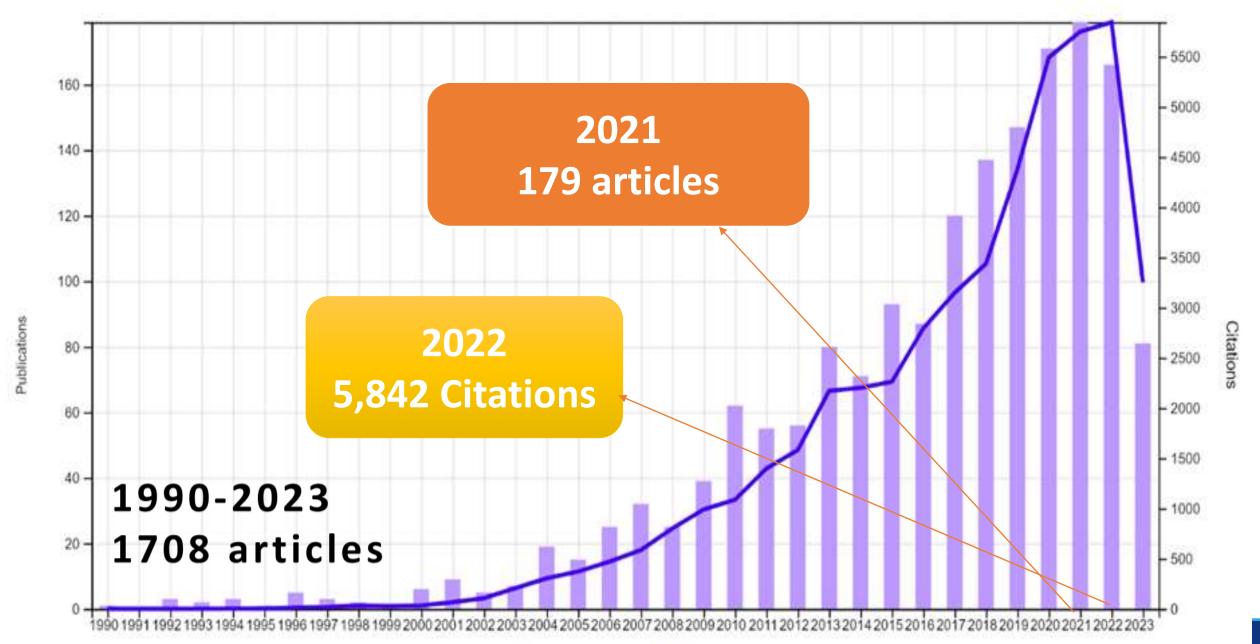


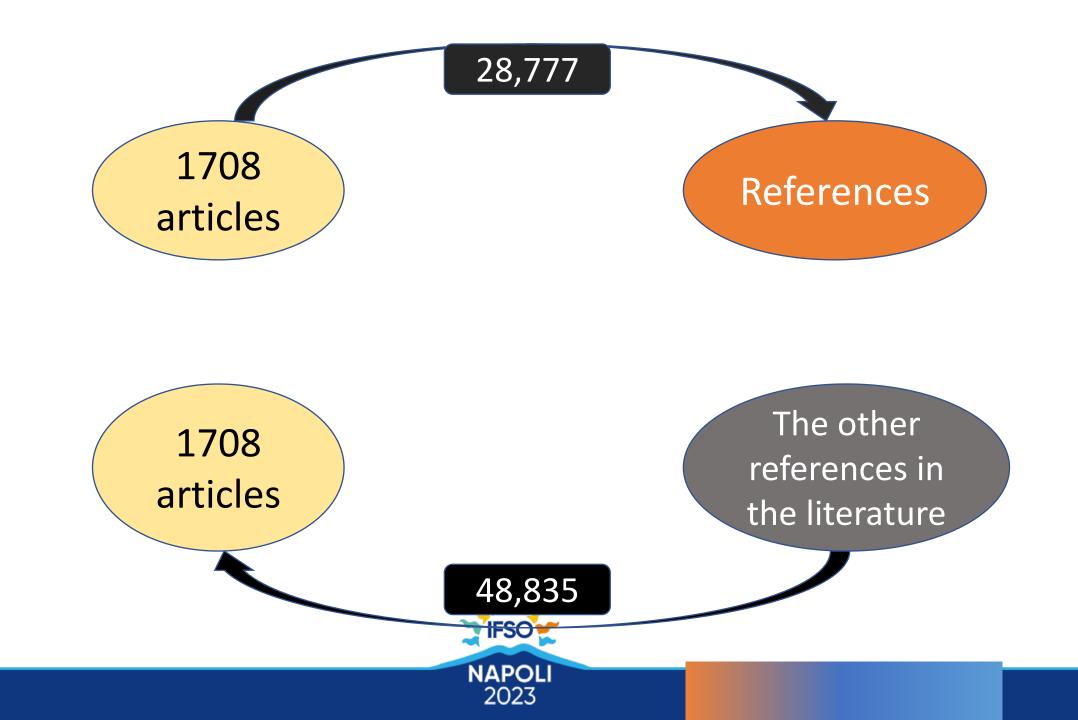
### **RESULTS**

WHAT DID WE FIND?



### Number of publications and citations





### **Citations**



- The average citation count for the studies is **28.59**.
- With a total of 1738 citations, the article written by Cummings and colleagues has received the highest number of citations.





### Publication Analysis

Journals Countries Institutions



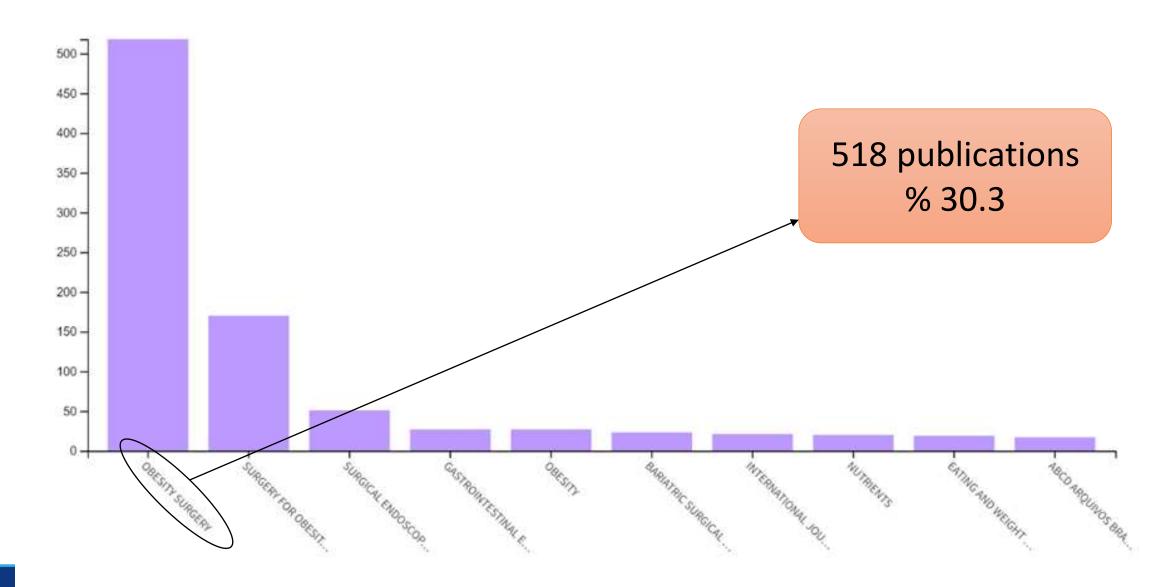
### **Publication Analysis of Journals**

A total of **423 journals** have published articles related to weight gain after bariatric surgery.

Accordingly, the top three journals with the most publications are "Obesity Surgery," followed by "Surgery for Obesity and Related Diseases," and "Surgical Endoscopy and other Interventional Techniques."



### **Publication Analysis of Journals**



### **Publication Analysis of Countries and Institutions**



### **COUNTRIES**

- USA (616 articles)
- BRAZIL (134 articles)
- UNITED KINGDOM (110 articles)



#### INSTITUTIONS

- Harvard University (83 articles)
- Brigham and Women's Hospital (60 articles)
- University of Nice Sophia Antipolis (56 articles)

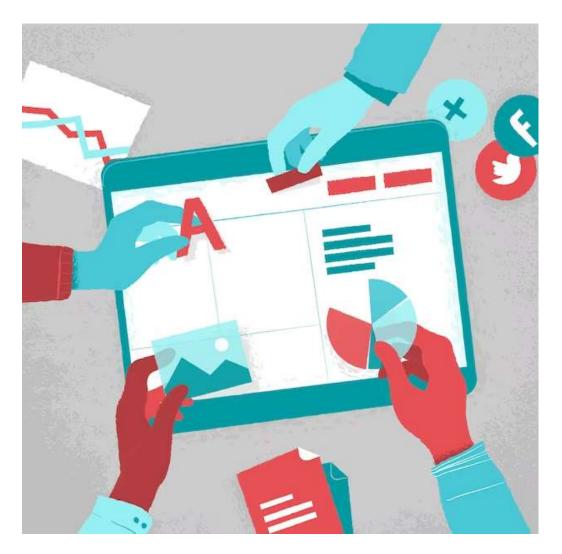


### Author Analysis

Publications Citations Co-authorship



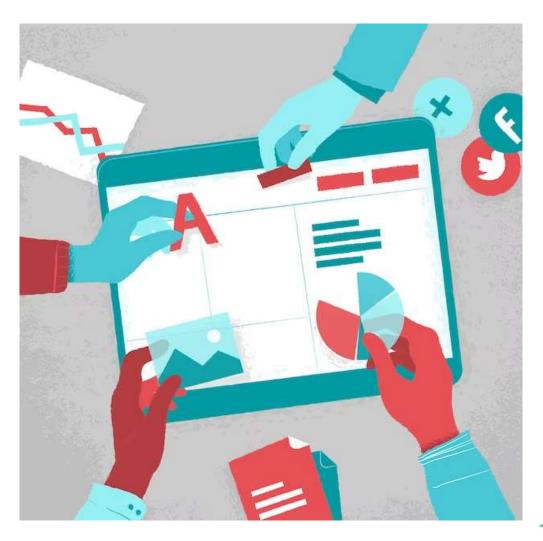
### **Author Performans Analysis**



### **PUBLICATIONS**

- Christopher C. Thompson" is in the first place with 32 publications,
- followed by "Pichamol Jirapinyo" with 16 publications, and
- "Gerhard Prager" with 15 publications.

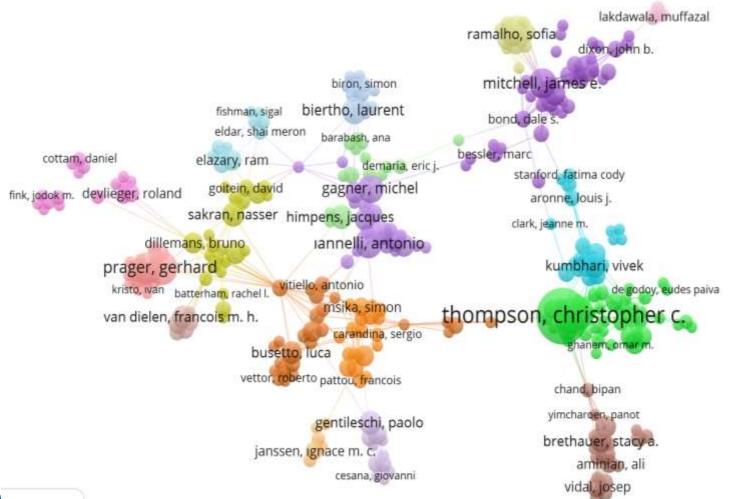
### **Authors Performans Analysis**



### **CITATIONS**

- The most cited authors are "Herman Toplak" with 981 citations,
- followed by "Volkan Yumuk" with 981 citations, and
- "Gerhard Prager" with 932 citations, forming the top three positions.

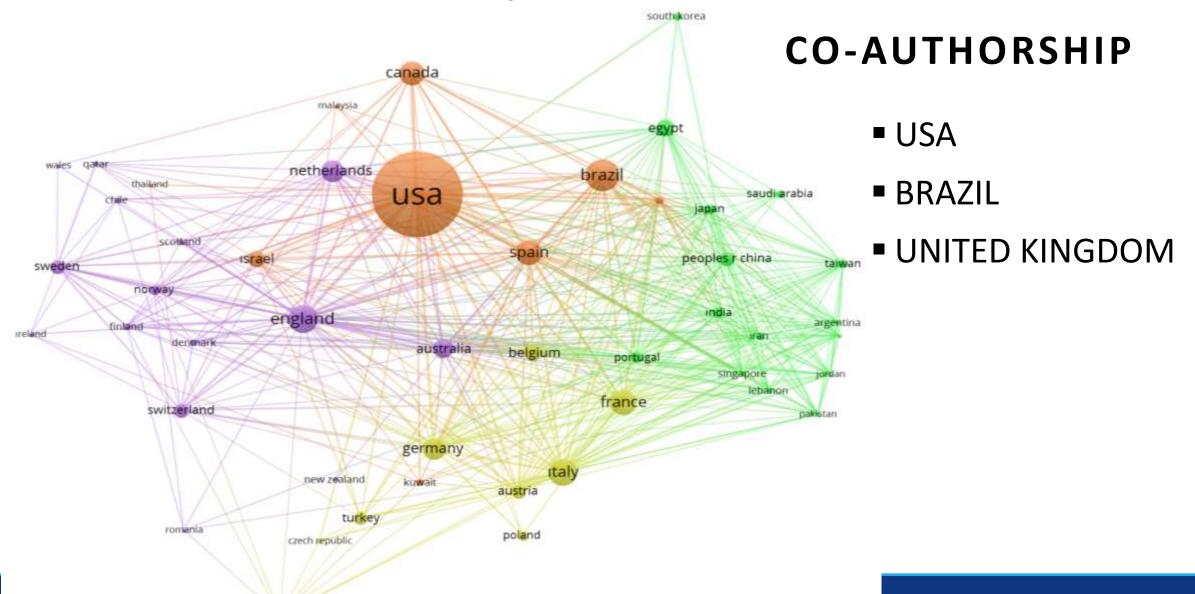
### **Authors Performans Analysis**



#### **CO-AUTHORSHIP**

- The co-authorship network of this article consists of 317 authors, each of whom has published at least 3 articles.
- These authors have formed a total of 21 co-authorship clusters.
- The largest clusters consist of 33, 29, and 26 authors, respectively.

### **Authors Performans Analysis**

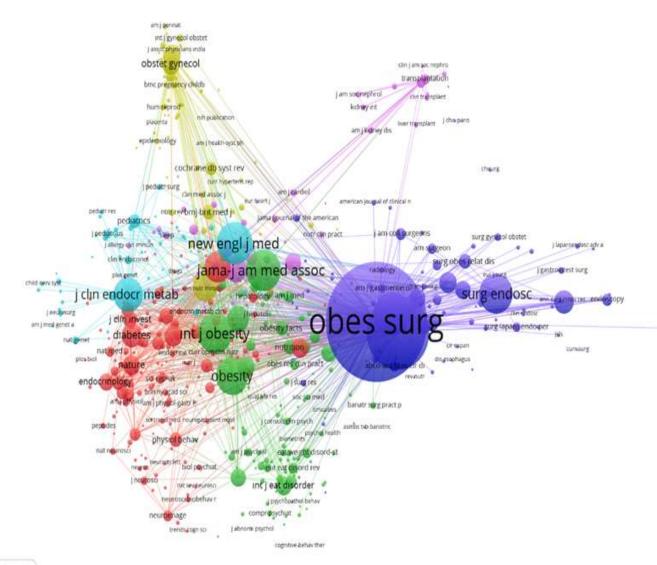




# CO-CITATION Analysis JOURNALS



#### **JOURNALS CO-CITATION ANALYSIS**



#### **CITATIONS**

A co-citation analysis of 6 clusters has formed among journals.

■ The journal with the largest cocitation network has 10,739 citations, which is "Obesity Surgery." This is followed by "Surgery for Obesity and Related Diseases" with 4,318 citations, and "Annals of Surgery" with 1,569 citations.



### Co-Word Analysis

Abstract Keywords

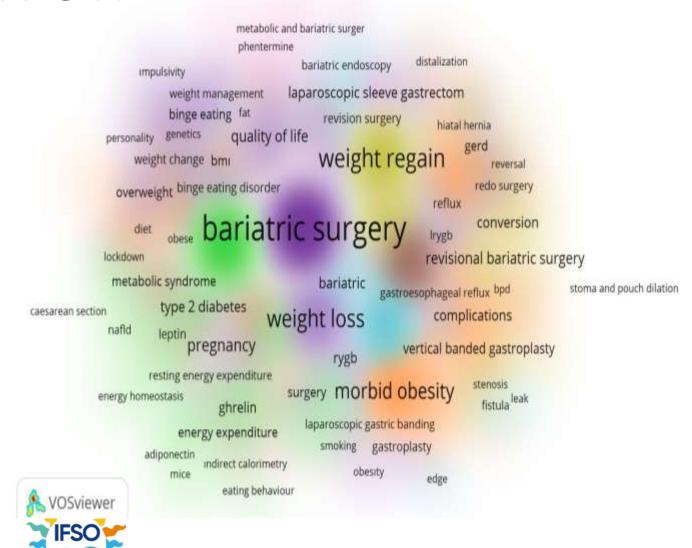


### CO-WORD

**NAPOLI** 

### KEYWORDS Co-occurrance

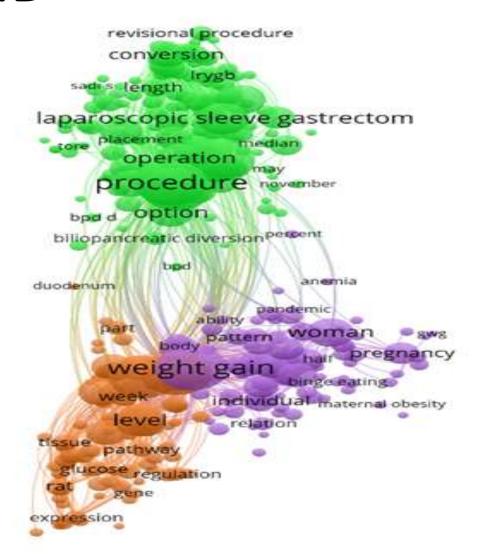
- Bariatric surgery
- Obesity
- Weight regain



### CO-WORD

## ABSTRACTS Co-occurrance 3 CLUSTERS

- 1. Surgical procedures
- 2. Weight regain
- 3. Metabolic outcomes







In summary....





### Grazie

**NEPAL/ITALY** 

**ANTALYA/TURKEY** 

### Teşekkürler

