# INPLASY PROTOCOL

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**Corresponding author:**
**Sandra Hernández-Corral**

**shcorral@gmail.com**

**Author Affiliation:**
**Master's and PhD program in nursing, National Autonomous University of Mexico, Faculty of Nursing and Obstetrics.**

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**Review Stage at time of this submission:** **Formal screening of search results against eligibility criteria.**

**Conflicts of interest:**
**None declared.**

# Body image in adults undergoing bariatric surgery: a systematic review and meta-analysis

Palacios-Meneses, BL[1]; Bak-Geller Corona, S[2]; Jiménez-Mendoza, A[3]; Hernández-Corral, S[4].

**Review question / Objective:** **The purpose of this study is to present a synthesis of knowledge about the effects of bariatric surgery on the body image of adults after surgical intervention.**
**Condition being studied:** **Along with the increase in obesity rates, the number of surgical procedures for its treatment is also growing. While for healthcare professionals, the main indicator of success of bariatric surgery is weight loss and the control/remission of comorbidities associated with obesity, for those who undergo such intervention, their expectations go beyond that, as excess wight has affected their psychosocial spheres, generating disorders of body image, low self-esteem, anxiety, eating disorders, isolations, among others. Therefore, evaluating the effect of bariatric surgery on body image is a key factor in determining the success of surgery from the user's perspective. It is necessary to have synthesis of knowledge considering sociocultural difference, objective measurement through instruments to incorporate them into long-term clinical follow-up.**

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 April 2023 and was last updated on 15 July 2023 (registration number INPLASY202340089).

## INTRODUCTION

**Review question / Objective:** **The purpose of this study is to present a synthesis of knowledge about the effects of bariatric surgery on the body image of adults after surgical intervention.**

**Rationale:** **Bariatric surgery is an effective treatment option for sustained weight loss and control/remission of obesity-associated diseases; however, it not only has physical repercussions but also impacts on a socioemotional level.**

There is not consensus on the effect of bariatric surgery on the body image of adults who undergo the procedure. The studies that have been carried out evaluate this parameter with multiple instruments and at different time periods, and the results are inconsistent. Therefore, it is necessary to conduct a literature review and meta-analysis that allows for the identification of changes in self-image in the short, medium, and long term.
Although there are systematic reviews on the topic, they do not integrate articles published on Ibero-American platforms or gray literature.

**Condition being studied:** Along with the increase in obesity rates, the number of surgical procedures for its treatment is also growing. While for healthcare professionals, the main indicator of success of bariatric surgery is weight loss and the control/remission of comorbidities associated with obesity, for those who undergo such intervention, their expectations go beyond that, as excess wight has affected their psychosocial spheres, generating disorders of body image, low self-esteem, anxiety, eating disorders, isolations, among others. Therefore, evaluating the effect of bariatric surgery on body image is a key factor in determining the success of surgery from the user's perspective. It is necessary to have synthesis of knowledge considering sociocultural difference, objective measurement through instruments to incorporate them into long-term clinical follow-up.

## METHODS

**Search strategy:** The search was conducted on scientific document platforms such as PubMed, Cochrane Library, Scopus, Web of Science, SciELO, Lilacs, until March 16, 2023. The language filter was applied, limiting the results to articles published in English, Portuguese, or Spanish. Additionally, a citation extraction will be performed to locate more articles, as well as a search in the TesiUNAM repository and the identification of articles in other sources.

The search strategy used was: ((Post bariatric surgery) ) AND (Self concept OR self esteem OR self perception OR Body image OR Personal Satisfaction OR Body Dissatisfaction OR Physical Appearance OR Personal space OR corporeity OR Quality of Life OR Body Dysmorphic Disorders).

**Participant or population:** Adults over 18 years of age, with obesity who have undergone bariatric surgery and their perception of body image has been evaluated before and after surgery.

**Intervention:** Bariatric surgery in its various modalities.

**Comparator:** None.

**Study designs to be included:** Pre-experimental or observational studies.

**Eligibility criteria:** Studies that include adults over 18 years of age who have undergone bariatric surgery and have had their perception of body image evaluated before and after surgery.

**Information sources:** The platforms consulted for document search were PubMed, Cochrane Library, Scopus, Web of Science, SciELO, Lilacs. Additionally, the TesisUNAM repository and other data sources will be used.

**Main outcome(s):** The included studies had to measure the effects of bariatric surgery on body imagen, for which the following data were evaluated before and after surgery:
1. Weight
2. Body Mass Index
3. Body image
4. Self-concept
5. Self-esteem
6. Self-perception
7. Personal satisfaction
8. Body dissatisfaction
9. Physical appearance
10. Corporeity
11. Body Dysmorphic Disorders
12. Quality of life.

**Additional outcome(s):** None.

**Data management:** Two researchers will independently examine the database to select studies that meet the inclusion criteria for the review. When discrepancies are noted, a third person will intervene.

**Quality assessment / Risk of bias analysis:** The Cochrane tool for assessing the risk of bias will be used to evaluate quality.

**Strategy of data synthesis:** A systematic review table will be developed, considering the elements of the PIO acronym.
Revman version 5.4.1 software will be used to perform a meta-analysis, with a random effects model used to estimate effect size.

**Subgroup analysis:** Subgroup analysis will be performed to identify causes of heterogeneity and variation in effect size between different instruments used to evaluate sel-image, as well as by implementation period.

**Sensitivity analysis:** Sensitivity analysis will be performed if the combined result has a high risk of heterogeneity.

**Language restriction:** Only studies in English, Spanish, and Portuguese will be selected.

**Country(ies) involved:** Mexico.

**Other relevant information:** None.

**Keywords:** Post bariatric surgery; Body image; Corporeity; Adults.

**Dissemination plans:** Upon completion of the review, it will be published in a peer-reviewed journal, and the results will be presented at a scientific dissemination event.

**Contributions of each author:**
Author 1 - Blessing Itzel Palacios-Meneses - Conceptualization, methodology, data curation, drafting the manuscript.
Email: blessing.palacios@iztacala.unam.mx
Author 2 - Sarah Bak-Geller Corona - Conceptualization, methodology, data curation, drafting the manuscript.
Email: bakgeller@gmail.com
Author 3 - Araceli Jiménez-Mendoza - Drafting the manuscript, supervision.
Email: ajimenez55070@gmail.com
Author 4 - Sandra Hernández-Corral - Conceptualization, supervision.
Email: shcorral@gmail.com