

## 1.2 The Effect of Sleep on Successful Weight Loss Following Bariatric Surgery

<sup>1</sup>Sonia Jermyn, <sup>2</sup>Liam Doherty, <sup>3</sup>Colm O'Boyle, <sup>4</sup>Derbrenn O'Connor

<sup>1</sup>*Bons Secours Hospital, Cork; <sup>2</sup>University College Cork*

**Background:** Bariatric surgery is the most effective method of sustained weight loss in morbidly obese patients. Despite this, up to 30% of patients fail to lose an adequate amount of weight for the surgery to be considered successful. Healthy sleep has been shown sustain weight loss. As it is unclear which factors influence weight loss following bariatric surgery, this study aims to assess the impact of sleep duration and quality.

**Methods:** A retrospective database review was undertaken including 341 adults who underwent bariatric surgery in Bons Secours Hospital and also undertook a sleep study between 2008-2022.

**Results:** The study population were an average age of  $46.3 \pm 11.0$  years, 79% female, with mean pre-op BMI  $49.0 \pm 8.4$  kg/m<sup>2</sup>. Average sleep duration was  $6.8 \pm 1.4$  hours. Linear regression analysis identified gastric bypass surgery type, absence of diabetes and absence of hypertension as independent predictors of weight loss following surgery. Sleep duration, Obstructive Sleep Apnoea (OSA), and CPAP use were not significant factors. After multivariate regression analysis both gastric bypass surgery ( $p < 0.001$ ) and absence of hypertension ( $p = 0.01$ ) remained independent predictors of increased Percentage Excess Weight Loss (%EWL) at 12 months post-surgery.

**Conclusion:** Sleep duration and presence of OSA were not significant factors impacting %EWL after surgery.

**Disclosures:**

*Conflict of Interest: The authors declare that they have no conflict of interest.*

**Corresponding Author:** Sonia Jermyn <https://orcid.org/0009-0001-0720-225X>