The objective of the present study was to analyze pre-operative surgeries that have been studied extensively, the pre-operative clinical surgical treatment for morbid obesity. Although each of these bariatric procedures—ORYGB, LAPRYGB, AGB, SLEEVE, and DS—together form the mainstay of weight loss treatment, the demographics and morbid obesity co-morbidities of patients who undergo these operations are unknown. Thus, a comprehensive direct comparison of who gets which operation and the clinical differences between the groups of patients who choose each operation are not established.

From the Surgical Review Corporation’s BOLD database, pre-operative demographics and morbid obesity co-morbidities of patients who underwent ORYGB (n=5389), LAPRYGB (n=166,601 patients who had ORYGB (n=5389), LAPRYGB (n=166,601), AGB (n=67,514), SLEEVE (n=8,966), or DS (n=1,673) were tabulated. The continuous variables weight and BMI were analyzed using an ANOVA with treatment in the model. Statistical significance for distribution of obesity-related co-morbidities was examined by using a general linear model with treatment in the model, and modified for a binomial distribution of data. Differences between patients having these operations were clinically significant. Patients with the highest BMI and most severe co-morbidities underwent DS. Conversely, AGB was selected by the least overweight and healthiest patients, with lowest BMI and fewest co-morbidities. ORYGB patients had highest liver disease and cardiac ischemia, and BMI, back pain, and cardiopulmonary complications greater than laparoscopic procedures. LAPRYGB patients were intermediate in BMI and co-morbidities between the open procedures and SLEEVE/AGB. SLEEVE patients were akin to the AGB group but with generally higher medical acuity. Surgeon recommendation versus patient preference in operation choice is not clear from the data.