

### **Abstract**

Obesity, a human property under which one possesses a body mass index (BMI) above 30, is a significant global health issue on the basis that it negatively impacts one's health by increasing the risk of high blood pressure, cancer, diabetes, sleep apnea, infertility, and heart disease, amongst a variety of other conditions. Obesity prevalence has increased significantly over the past semi-century, as women have historically exhibited higher risks than men. To address this issue, this project develops a protocol for nutrition and exercise based on evidence-based practices that may address obesity. This project seeks to determine if the implementation of a protocol for nutrition and exercise will improve body weight and BMI levels in obese adult women over a four-week period. This project takes place in a clinic in New York, where patients seek assistance for weight management. This project evaluates pre and post-intervention body weight and BMI and employs statistical analyses to determine the effectiveness of the intervention. This project improves patient care and provides evidence-based practices that may serve as a resource to other clinics. This paper examines the problem, the literature surrounding the problem and the solutions, a theoretical framework, the project design, analysis, and limitations of a quality improvement project. The success of the weight loss protocol is validated using specific outcome and process measures. This project provides further support that the national weight loss protocol postulated by Health.gov (2016) can result in beneficial weight loss outcomes in obese adult women when followed appropriately. This project can shape future weight-loss interventions, weight management efforts, and the current multifaceted understanding of weight management.

*Keywords: obesity intervention, public health, health education, weight management*