

Abstract

Background and Purpose: This quality improvement project sought to evaluate the effectiveness of a 12-week virtual evidence-based prediabetes education program in an outpatient setting for adults greater than 65 years old with prediabetes to address pre-diabetes knowledge and health indicators (weight, body mass index, and exercise logs).

Methods: This project utilized a 1-group pretest-posttest design comparing prediabetes knowledge and health indicators at baseline and after the intervention. The intervention was attending six virtual sessions using a modified Center for Disease Control National Diabetes Prevention Program to accommodate for the length of the improvement project.

Results: A total of 23 participants who met inclusion criteria were recruited from four senior focused clinics in the same zip code. Fifteen participants were lost during subsequent sessions, and 8 attended all six sessions virtually. Statistically significant improvement was demonstrated among the final sample (n=8) in median weight (167 pounds vs 147 pounds, $p < 0.028$), median BMI (28.5 kg/m² vs 26.6 kg/m², $p < 0.028$), and median SDKS scores (12 vs 16, $P < 0.001$). Changes in mean activity minutes (281 vs 225, $p < 0.237$) and mean steps (42,065 vs 33,850, $P < 0.345$) did not demonstrate statistical significance.

Conclusion: This pilot study found that a virtual lifestyle education program can improve health indicators (weight/BMI) and pre-diabetes knowledge to address the needs of patients over the age of 65 with prediabetes.

Implications: A virtual lifestyle education program should be considered a standard of practice in primary care to address prediabetes for patients over the age of 65.

Keywords: Prediabetes, virtual, geriatric, lifestyle intervention, knowledge