Background and Purpose

- Nearly half of adults aged 65 years or older are reported to be living with prediabetes (23.1 million)¹
- Individuals with prediabetes if left untreated will likely progress to type 2 DM with 5 years of onset²
- Elderly patients increased risk for development of type 2 DM³
- Estimated 1.5 million adults yearly are newly diagnosed with DM, 400,000 of them were over 65⁴

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).

Method & Intervention

Design: 1-group pretest-posttest design
Sample: 23 participants met inclusion criteria, 8 completed study
Setting: Primary Care Practice in Southern Nevada (virtual)
Inclusion Criteria: ≥65 years old with diagnosis of prediabetes not currently treated with diabetes medication from 4 senior focused clinics in same zip code.

Intervention:
- 12- week, 6 virtual session using a modified CDC DPP
- 6 modules were conducted and recorded biweekly by the Primary Care Nurse practitioner
- Each participant was expected to complete post session survey online on self-collected data including exercise log (activity minutes and pedometers) and weights.

Aims

1. Determine the impact of a 12-week virtual evidenced-based lifestyle change program for prediabetes on health indicators (weight, body mass index, and exercise logs).
2. Determine the effect of the 12-week virtual evidenced-based lifestyle change program for prediabetes measured by Diabetes Knowledge Pretest-Posttest.
3. Determine the feasibility of the 12-week virtual evidenced-based lifestyle change program for prediabetes by measuring group attendance rates and using a feasibility survey.

Results

- 23 participants met inclusion criteria, 15 were lost during subsequent sessions
- 8 participants attended all six sessions virtually
- Statistically significant improvement (n=8)
  - median weight (167 pounds vs 147 pounds, p <0.028)
  - median BMI (28.5 kg/m² vs 26.6 kg/m², p<0.028)
  - median SDKS scores (12 vs 16, P<0.001)
- No statistical significance
  - Changes in mean activity minutes (281 vs 225, p<0.237) and mean steps (42,065 vs 33,850, P<0.345)

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.

Conclusion/Implications

- 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.
- The pilot study found significant improvements in health indicators (weight/BMI) and health knowledge.
- Positive participant survey reports also indicate feasibility and consideration for long term implementation.
- 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.