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Enrollment, engagement, and effectiveness of a diabetes prevention program delivered using synchronous distance technology

C. DUNN, PhD, RDN, LDN¹, C. THOMAS, MAEd², S. MYER, MPH¹, C. COLLINS, MPH¹, K. NORDBY, MPH, RDN, LDN¹, S. AGGARWAL, MHSc, MPH, RDN, LDN¹

- 1. NC State University, Raleigh, NC, USA
- 2. NC Division of Public Health, Raleigh, NC, USA

NC STATE UNIVERSITY





INTRODUCTION



The Centers for Disease Control and Prevention (CDC) indicates that individuals with prediabetes show a significant decrease in developing type 2 diabetes when they

participate in a lifestyle change program that results in a minimum of 5% decrease in body weight and 150 minutes of physical activity per week¹. The CDC recognizes distance learning as an effective delivery mode for lifestyle change programs to prevent type 2 diabetes. The purpose of this study was to assess enrollment, engagement, and effectiveness of a type 2 diabetes prevention program (DPP) using synchronous distance technology.

METHODS

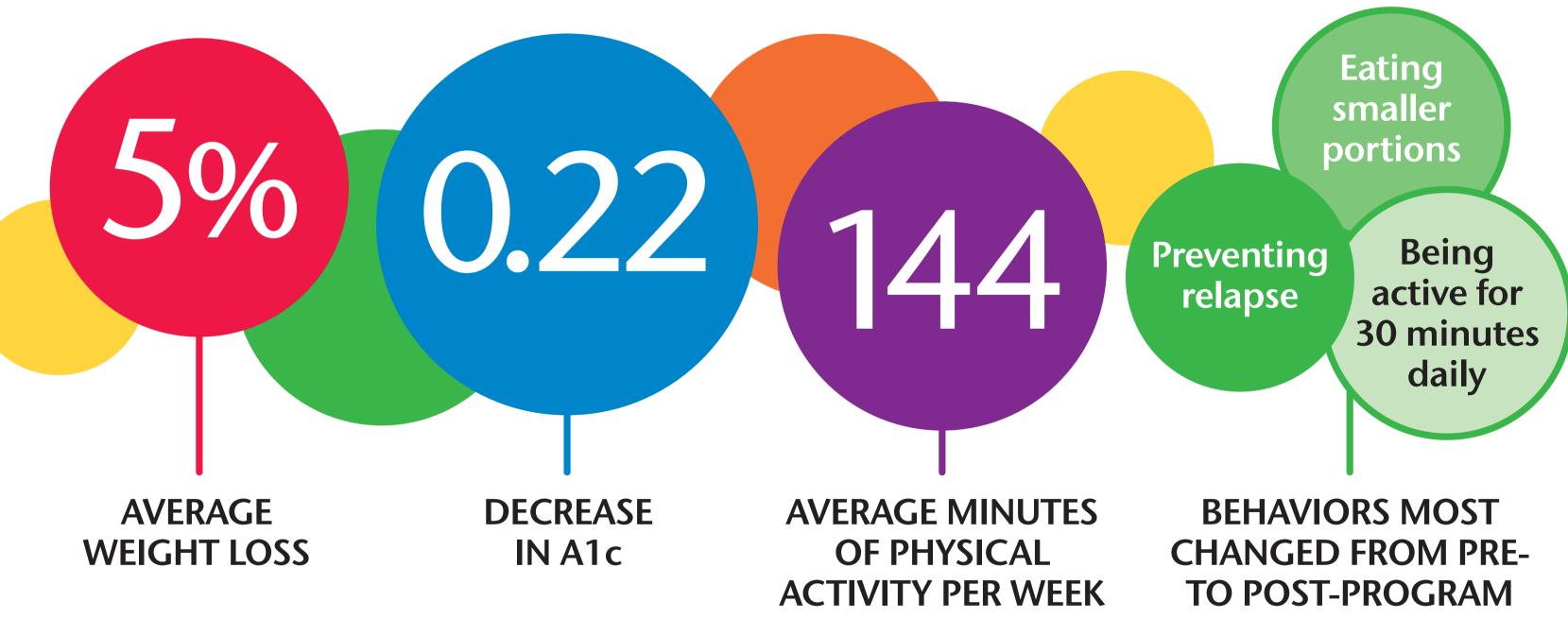
Eat Smart, Move More, Prevent Diabetes is a synchronous distance DPP that is delivered virtually. All participants attend classes at the same time with the same trained lifestyle coach and classmates. It is an intensive 12-month program with two 6-month phases consisting of 26 lessons. The program focuses on healthy eating, physical activity, and mindfulness behaviors. Key concepts include

planning, tracking, and living mindfully to prevent diabetes. Participants report weekly their weight, minutes of physical activity, and progress on mindfulness strategies using an online portal. The program has full recognition status with CDC².

RESULTS

Program completion rates did not differ based upon gender or education (n=1,060). Phase 1 was completed by 78% of participants and 60% completed the entire program. The average weight loss for those who completed the program was 5%. There was a significant decrease in A1c (-0.22 p<.001). The average physical activity minutes for participants was 144 minutes per week.

Results for participants who completed the program



BEHAVIORS LEAST CHANGED FROM PRE- TO POST-PROGRAM

Strength trainingBeing active for 60 minutes daily

Based on the Wilcoxon signed-rank test, there were statistically significant changes in all 18 health behaviors assessed (p<.001). The three behaviors with the most change from pre to post were: preventing relapse, eating smaller portions, and being physically active for 30 minutes each day.

CONCLUSIONS

A DPP using synchronous distance technology is an effective delivery mode to help participants adopt healthy behaviors, increase physical activity, and achieve the weight loss necessary to prevent or delay the onset of type 2 diabetes.

REFERENCES

- 1. **Knowler WC, Barrett-Connor E, Fowler SE, et al.** Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med.* 2002;346(6):393-403. doi:10.1056/NEJMoa012512.
- 2. Requirements for CDC Recognition. Centers for Disease Control and Prevention. https://www.cdc.gov/diabetes/prevention/requirements-recognition.htm. Published August 19, 2021. Accessed November 18, 2022.