

Title: "Leveraging Cooperative Extension for Community-Based Diabetes Prevention: Insights from the NJ Empower to Prevent (NJEP) Program"
300-word count- Not including title & data table

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Background:

Diabetes is a major public health issue, with 38.4 million adults affected in the U.S., including 2.4 million in New Jersey. Access to effective diabetes prevention programs is limited, especially in underserved communities. To address this, Cooperative Extension programs have expanded the reach of the CDC's National Diabetes Prevention Program (NDPP) through community-focused models. The NJ Empower to Prevent (NJEP) program, developed by Rutgers Cooperative Extension's Family and Community Health Sciences (FCHS) department in collaboration with the Cooperative Extension NDPP Interest Group (CE-NDPP), exemplifies this approach with its virtual delivery model.

Objectives:

This study assesses the NJEP program's effectiveness in promoting diabetes management outcomes, focusing on participant engagement, retention, and achievement of health goals, including weight loss, increased physical activity, and improved dietary habits.

Methods:

A mixed-methods cohort study involved 59 participants across four NJEP cohorts. The program was delivered virtually via Zoom, featuring 16 weekly sessions followed by bi-monthly and monthly meetings. Quantitative data on weight loss, physical activity, and dietary habits were collected, alongside qualitative feedback from pre- and post-intervention surveys. Retention and attendance rates were also analyzed.

Results:

The NJEP program showed strong community impact, with 54.4% of participants meeting at least one CDC Prevent T2 outcome. Participants achieved an average weight loss of 3.51% and engaged in 2393.18 minutes of physical activity weekly. The program's retention rate of 87.86% surpassed national averages, and the virtual format facilitated high engagement during the pandemic. Although dietary habit improvements were modest, participants expressed increased confidence in managing their physical activity.

NJEP Program Outcomes

A) CDC Outcomes

	Cohort 1 - 14 Participants	Cohort 2 - 15 Participants	Cohort 3 - 16 Participants	Cohort 4 - 14 Participants
# of Participants met 1 Outcome	4	2	3	4
# of Participants met 2 Outcomes	4	2	1	0
# of Participants met 3 Outcomes	1	3	0	3
% of Participants met an Outcome	64.3%	58.3%	25%	70%

B) Quantitative Outcomes

	Cohort 1 - 14 Participants	Cohort 2 - 15 Participants	Cohort 3 - 16 Participants	Cohort 4 - 14 Participants
Weight Loss (%)	3.88%	5.90%	1.89%	4.38%
Physical Activity (minutes per week)	2910.4(208)	3145(210)	3420.2(218)	2197.1(157)

C) Qualitative Outcomes

	Cohort 1 - 14 Participants	Cohort 2 - 15 Participants	Cohort 3 - 16 Participants	Cohort 4 - 14 Participants
16. On average, how many cups of fruit do you eat in a day?(1 cup is equal to the size of a closed fist or baseball)	+0.49 Cups (0.83→1.32)	+0.01 Cups (1.29→1.3)	+0.04 Cups (1.53→1.57)	+0.21 Cups (0.85→1.06)

18. On average, how many cups of vegetables do you eat in a day?(1 cup is equal to the size of a closed fist or baseball)	+0.67 Cups (1.33→2)	-0.21 Cups (1.46→1.25)	+0.24 Cups (1.83→2.07)	+0.04 Cups (1.40→1.44)
14. I can be physically active at least 150 minutes a week.	18% (72→90)	9.6% (78.4→88)	7.2% (80→87.2)	4.6% (82→86.6)

D) Attendance & Retention Rates of Cohorts 1-4

	Cohort 1	Cohort 2	Cohort 3	Cohort 4
# of Enrollees	14	15	16	14
# of Drop Outs	0	3	0	4
Retention Rate	100%	80%	100%	71.43%
Attendance Rate	91.48%	83.01%	84.36%	83.85%

E) Retention Rates Comparison Table

	CE-NDPP	National	NJEP*	
Retention Rate	43%	36%	87.86%	

**NJEP Retention Rate = Average of 4 Cohorts*

Note:

CE-NDPP - Cooperative Extension National Diabetes Prevention Program

National- CDC's National Diabetes Prevention Program

Conclusions:

The NJEP program successfully used a community-based, virtual model to enhance diabetes prevention efforts, achieving high engagement and retention rates. This approach highlights the potential of Cooperative Extension models to bridge gaps in diabetes prevention, with future efforts aimed at expanding reach and refining strategies for underserved communities.