UCLA Campus-Based Diabetes Prevention Program (DPP) Evaluation Study

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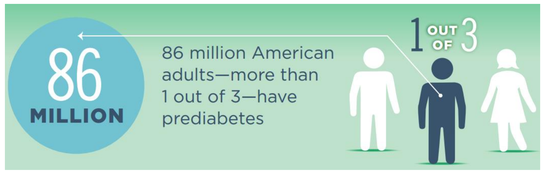
Background

Of the 86 million individuals living with Pre-Diabetes, 90% of individuals are unaware of their status. The Centers for Disease Control has endorsed a national effort to prevent type II diabetes through translation of the Diabetes Prevention Program (DPP), an evidence-based curriculum which UCLA has adopted to reduce diabetes incidence within the university community.



Study Aims:

I: The primary study aim is to qualitatively explore the facilitators and barriers to the early implementation UCLA DPP.

II: Future analyses will examine differences in weight-loss outcomes among participants who were recruited with two different strategies, in (1) referrals from a pharmacist after shared-decision making for diabetes prevention; specifically participant of the PRIDE study and (2) self-referrals.

Hypothesis

Participant utilization of the pharmacist practice-based shared-decision aid will have a higher program attendance rate, increased weight loss, and greater total physical activity minutes.

Methods

A two-phase approach utilizing mixed-method analysis:

Phase I: Qualitative data were collected via audio-recording from a total of 9 key-informant interviews (30-60 minutes) in private rooms; DPP participants (3), DPP staff (2), and program leadership (3). Data was transcribed verbatim and coded utilizing Nvivo 11 analysis software.

Phase II: Quantitative data from PRIDE study and self-referrals (all DPP participants) were collected to date; including weight loss, program attendance, physical activity minutes, and participant demographics.

Results

Fig 1. The RE-AIM model: *Provides a framework for what details should be specified in evaluative studies of diabetes prevention programs.*

UCLA DPP RE-AIM Evaluation Model

	Goals - Reality	Action
Reach: *Ability to recruit at-risk faculty, staff and students*	▪ Recruit/enroll UCLA staff, faculty and students with prediabetes. ▪ **"That's the only thing that fell short… at this time we haven't had many faculty or staff, I think it's a small percentage like 10 or 15 percentage" –DPP Staff**	▪ Increase student referrals from Ashe Student Health Center by increasing prediabetes screening. ▪ Increase referrals from staff and faculty through advertisement at Occupational Health Services.
Efficacy: *Contents of the program*	▪ Replicate DPP's evidence-based curriculum (58 percent reduction in progression from pre-diabetes to diabetes) ▪ **"…the last examination, I went from 5.9 to 5.5 (A1C), so I know that I am doing the right things" –Participant**	▪ Address outdated nutrition information within curriculum collaboratively. ▪ **"Making sure that [our lifestyle coachs'] participants have a good group dynamic… that's the core of the DPP" –DPP staff**
Adaption: *Ease of implementation (Cost and Benefits)*	▪ Utilize Healthy Campus Initiative (HCI) as an umbrella ▪ **"If it was me by myself trying to track down student health leadership and track down campus recreational… it would have been harder to do and taken more time as opposed to HCI which already bring together those people." –DPP Leadership**	▪ Bring new stakeholders to the table. ▪ Increase enrollment rates to optimize participant-coach ratio (20:1), and thereby maintain price of class at affordable rate ($240).
Implementation	▪ Utilize HCI seed funding to operationalize stakeholders, train coaches, and recruit participants. ▪ **"Operationalizing the agreement to do something is also another hard step" –DPP leadership**	▪ Increase DPP staff labor (hours) dedicated to CDC required reporting of participant data. ▪ **"I think DPP can help us make linkages to other maybe wellness programs on campus" –DPP Staff**
Maintenance	▪ Recruit from diverse pools. ▪ Increase campus awareness of DPP. ▪ **"UCLA likes large diverse hybrid decentralized enterprises… it takes the whole village and a lot of people from a lot of directions to move things along" –DPP leadership**	▪ Work on policy level to ensure access. ▪ Partner with health insurance plans to cover cost of DPP. ▪ **"It's a year-long program so you get a lot of information and it also helps me gradually get to where I want to go…" –Participant**

Fig 2. UCLA DPP Ecological Model: *Levels and sectors of influence on diabetes risk (progression from prediabetes to type-2 diabetes)*

UCLA DPP Ecological Model

Table 1 Characteristics of the Study Population

	n	%
Total Participants	55	--
PRIDE	45	81.8
Non-PRIDE	10	18.1
Gender		
Male	12	21.8
Female	22	40.0
Not reported	21	--
Ethnicity		
Hispanic or Latino	5	9.0
Not Hispanic or Latino	28	50.9
Not reported	22	--
Race		
American Indian/Alaska Native	0	--
Asian	4	7.2
Black or African American	6	10.9
Native Hawaiian/Pacific	0	--
Islander	17	30.9
White (non-Hispanic/Latino)	28	50.9

	Mean	*SD*
Age (years)	54.7	±13.9
BMI (kg/m^2)	30.2	±7.0
Weight loss (lbs.)	6.4	±6.95
Physical activity minutes	126.3	±86.7

Conclusion

The UCLA DPP Ecological Model strongly suggest that prevention of type II diabetes at a university level requires a lifestyle intervention program along with a collective impact approach to health improvement.

Next Steps:

I: A second individual will analyze and compare themes derived from qualitative analysis.

II: Examine how shared-decision making aids shape outcomes of weight-loss, program attendance and participants' activity minutes.

Acknowledgments

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