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Improving Enrollment in Lifestyle Change Programs

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The findings and conclusions in this report are those of the author(s) and do not necessarily represent the views of the Centers for Disease Control and Prevention.

Background

Diabetes is the eighth leading cause of death in the United States.[1] Lifestyle change programs (LCPs) help participants make healthy changes in their diet, physical activity levels, and more. LCPs are effective in reducing the risk of type 2 diabetes, but the people who could benefit from them often don't enroll, or don't persist in the program after they start. One promising strategy for increasing enrollment in LCPs are pre-program informational sessions that introduce potential participants to the program.[2] While these sessions have been used in chronic disease self-management,[3] smoking cessation,[4] and type 2 diabetes,[5] they may not always be as effective in addressing the myriad reasons people fail to enroll or persist in the program.[6] The Centers for Disease Control and Prevention (CDC) and their contracting partners, Abt Global and ideas42, developed and tested a structured, behavioral science theory-based, LCP introductory session, which we refer to as the "Discovery Session."

The Discovery Session sought to increase enrollment and participation in the CDC's National Diabetes Prevention Program (DPP) LCP by leveraging insights from behavioral science. This brief describes results from an evaluation, conducted in the spring of 2019, to assess whether the Discovery Session improved enrollment and attendance, and whether programs could offer it with minimal additional effort and cost.

Highlights

- *People with prediabetes have higher than normal blood sugar levels, but they can prevent or delay type 2 diabetes through evidence-based lifestyle change programs (LCPs).*
- *Many people with prediabetes do not enroll or persist in LCPs.*
- *Introductory "Discovery Sessions"— informed by behavioral science—can help boost participation in LCPs in a low-cost way by addressing key behavioral barriers to enrollment and retention.*

Our Approach

We designed the Discovery Session using a behavioral design process to understand and address behavioral barriers that prevent people from enrolling in and completing the National DPP LCP, working within existing introductory sessions.[7] Drawing from behavioral science research, we hypothesized potential barriers that could be addressed through the session, and then investigated those hypotheses through interviews with site staff and LCP participants. Through this process, we identified five barriers to enrollment and retention:[8]

- ***Lack of urgency*** to enroll in an LCP
- ***Misperception of the risk*** of prediabetes and type 2 diabetes
- ***Present bias,*** or in other words, an over-emphasis on immediate costs and benefits at the expense of the future
- ***Lack of social influence*** from other current or previous participants
- ***Lack of self-efficacy*** for reducing the risk of type 2 diabetes

To address these barriers, we incorporated "nudges" that would be feasible for organizations to implement because they are: 1) small, low-cost tweaks to existing conditions; 2) do not restrict participants' freedom of choice; and 3) have been successful in diverse areas of behavior change such as consumer finance, medication adherence, and opioid prescription reduction.[9] These nudges were incorporated into materials and facilitators' guides for in-person and videoconferenced introductory sessions (see Table 1 for activity details).

To evaluate the Discovery Session, we identified 12 study sites with official recognition from the CDC's Diabetes Prevention Recognition Program, experience offering the LCP, similar general LCP class size, ability to offer in-person classes, and interest in study participation. These sites were then assigned to be a Discovery Session site or a comparison site offering their usual introductory session. Lifestyle coaches and other programmatic facility staff from the 12 participating sites delivered the program over six months in spring 2019.

We used a mixed-methods evaluation approach, including interviews, surveys, and observational reports, to assess a number of different metrics, including enrollment, participation, feasibility, acceptability, appropriateness, adoption, fidelity, and costs of integration in real-world conditions.[10]

TABLE 1: INTRODUCTORY SESSION ACTIVITIES

Activity	Description	Barriers Addressed
Session introduction	Attendees are welcomed by staff and congratulated for taking the first step toward achieving their health-related goals	
Icebreaker activity	Attendees meet others in the session and share something fun about themselves	
Values affirmation activity	Attendees identify what they value most and start to believe in their ability to successfully take action towards living a healthier lifestyle	
Description of prediabetes, type 2 diabetes, and the National DPP	Attendees learn they can take action to reduce/prevent type 2 diabetes, hear that they will have support, and obtain information about enrolling in the National DPP LCP	
Administration of a prediabetes risk test	Attendees determine their own risk for developing type 2 diabetes	
Movement activity	Attendees learn how to incorporate physical activity into their daily lives and identify ways they are already taking positive steps	
Testimonial from a current or previous LCP participant	Attendees connect to and understand what others like them have gained from the program	
Collaborative commitment activity	Attendees increase their sense of accountability to others and identify skills that can be practiced right away	
Session wrap-up/ enrollment	Attendees are given the opportunity to live a more active and healthier life by enrolling in the National DPP LCP immediately following the session	

Results

Our final sample included 54 participants from the Discovery Session sites and 47 participants from the comparison sites. The Discovery Session sites and comparison sites were comparable across multiple metrics, including volume, LCP types (health system, YMCA, or other community-based organizations), experience implementing an LCP, and rurality. Most participants in both study groups were female and white, though the Discovery Session sites had a larger proportion of white participants than the comparison sites ($p = 0.002$). Comparison site participants were more likely to have Medicare ($p = 0.02$) and be older ($p = 0.003$).

Enrollment and participation were higher among Discovery Session participants, though the difference was not statistically significant. ***Forty-eight (89%) Discovery Session participants and 32 (68%) comparison group participants registered for an LCP during or after attending their introductory session (p=0.377).*** Five out of six Discovery Session sites reported that 100% of participants who registered for the LCP attended the first class, compared to 80% of comparison sites. While attendance at class 2 decreased in the Discovery Session sites compared to the comparison sites, a larger proportion of Discovery Session sites (33%) had 100% attendance at class 3 compared to the comparison sites (20%).

Intervention fidelity was high among Discovery Session sites. Overall, all Discovery Session sites were able to implement activities with at least 60% adherence to the Discovery Session protocol, and four of the six sites implemented activities with 80% adherence. All six sites selected for the project agreed that the Discovery Session was acceptable, as well as indicated a willingness to adopt by following up with further questions and seeking advice.

Implementation costs for the Discovery Session were relatively low. The total average labor to prepare for and deliver the Discovery Session was 24.1 hours ($554.25 in average total labor cost for first-time implementation), ranging from 10 to 55 hours ($174.54–$963.00). Other direct costs averaged $29.78. Although one site indicated that the time needed to prepare and deliver the Discovery Session was more than usual, the remaining sites reported that labor costs were similar to those of their typical introductory session.

Discovery Sessions in Practice

Since completing the study, the CDC team has developed multiple versions of the Discovery Session implementation guidelines: in-person, videoconferencing, English, and Spanish. While tracking usage is limited, we can determine that as of January 2024, the videoconferencing guide (published February 2022) has 7,300 views and the in-person guide (published October 2023) has 2,300 views.

> **"The Discovery Session is an indispensable tool for introducing and marketing the program to our prospective participants. Like a good quick-start guide, it's easy to use and customizable for our needs as coaches. I also appreciate that it employs behavioral change approaches that are informed by theory and empirically tested."**
>
> *–Michael J. Cannon, PhD*
> *Lifestyle Coach, CDC/Division of Diabetes Translation*

Implications for Public Health

This intervention and evaluation demonstrated the value of using behavioral science to address behavioral barriers preventing individuals from enrolling and remaining in the National DPP LCP in a way that requires relatively little staff time and resources compared to current LCP enrollment and retention strategies, which could also serve to improve health equity. The evaluation results suggest that the behaviorally informed Discovery Sessions can improve enrollment and retention, and can be implemented with high fidelity and minimal additional costs and resources.

For organizations looking to implement their own Discovery Sessions, implementation guidelines are available from the CDC in both English and Spanish for both in-person and virtual Discovery Sessions.

Endnotes

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