

Why digital options must be part of fight against prediabetes

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People with prediabetes clearly benefit from participation in an intensive lifestyle-change program (LCP), Diabetes Prevention Program (DPP) recognized by the Centers for Disease and Control and Prevention (CDC). The face-to-face coaching on healthy lifestyle behaviors and group support that this program provides can help patients prevent or delay type 2 diabetes and other medical conditions.

Although the DPP lifestyle change program has strong evidence to support its effectiveness in preventing type 2 diabetes, many of the 84 million patients with prediabetes aren't able to participate in an in-person program.

Some patients may not have the time or resources to attend weekly or monthly classes, or they may prefer an on-demand interaction at their convenience. Digital health, and specifically virtual diabetes prevention LCPs, offer a way to overcome those barriers and connect more patients with programs to improve their health.

An article written by AMA experts explores evidence that shows how digital health-supported LCPs are already helping some patients, offers suggestions on what research still needs to take place and discusses opportunities for these programs to have a greater impact in the future. The paper—written by Kate Kirley, MD, the AMA's director of chronic disease prevention, and Neha Sachdev, MD, director of health systems relationships at the AMA—was published in the American Diabetes Association's journal, *Diabetes Spectrum*.

There are currently more than 70 online providers of CDC's DPP lifestyle change programs listed on the National DPP website, of which 11 have received full recognition, which means their participants have achieved key metrics of weight loss and physical activity.

“As the United States strives to reduce the burden of type 2 diabetes, digital health-supported LCPs can innovatively bridge the clinical and community settings and are an important addition to our national type 2 diabetes prevention strategy,” the authors concluded in their article, “Digital Health-Supported Lifestyle Change Programs to Prevent Type 2 Diabetes.”

How technology has helped

To date, the largest evidence base regarding interventions to prevent type 2 diabetes has come through in-person LCPs that help patients develop skills to lead healthy lifestyles. Researchers previously found that people who participated in this type of program reduced their incidence of type 2 diabetes by 58 percent relative to placebo after three years. But the evidence base is growing for digital LCPs.

After reviewing studies published between 2000 and February 2018 that evaluated the effectiveness of digital-health supported LCPs, Drs. Kirley and Sachdev concluded that “there is fair- to good-quality evidence that these programs are effective in achieving clinically significant weight loss and often have high engagement rates.”

The key components to LCPs are coaching, self-monitoring one’s diet, physical activity and weight, skills development, and group support. Digital health can supplement or deliver these components.

One example of a digital LCP is Omada Health Inc., a CDC-recognized provider with a comprehensive digital LCP. Highlights from studies of Omada include:

- | Three-year data from a single-arm trial showed people lost an average 4.7 percent of their weight by the end of the first year and 3 percent at the three-year mark.
- | A nonrandomized trial among people with prediabetes found that 31 percent of people lost 5 percent of their body weight, compared with 20 percent of people in a matched control group.
- | A single-arm retrospective analysis of 500 Medicare-age adults with prediabetes or metabolic syndrome demonstrated a mean 7.5 percent weight loss among the 86 percent of participants who completed 1 year of the program.

Noom, another example of a CDC-recognized provider offering comprehensive digital LCPs, also saw success. In a pilot study of 43 employees of a large insurance company, 83 percent completed the digital program, losing a mean 7.5 percent of their body weight at 6 months.

More research is needed on whether digital health-supported LCPs can be tailored to specific populations, particularly underserved populations including racial and ethnic minorities, men and rural

residents.

“As the number of LCP options continues to grow, clinicians need evidence to guide individual patients in selecting the LCP in which they personally will be most likely to succeed,” the paper says.

Physicians and health care organizations also need pragmatic guidance regarding how to implement referrals to both in-person and digital LCPs. The AMA’s Diabetes Prevention Guide offers comprehensive and customized guidance to help practices and health care organizations identify patients with prediabetes and manage the risk of developing type 2 diabetes, including referring eligible patients to a National Diabetes Prevention Program lifestyle-change program based on their individual needs.