How a prediabetes decision aid can help ease path to prevention

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Research shows there is a way for physicians to help patients with prediabetes—particularly those who don’t speak English or have lower levels of education—take the action they need to prevent the onset of type 2 diabetes.

For a study whose results were published in the journal *The Science of Diabetes Self-Management and Care*, English- and Spanish-speaking patients with prediabetes were given a one-page prediabetes decision aid. The care tool visually displayed the differences in the risk of developing type 2 diabetes if a person with prediabetes participated in an intensive lifestyle intervention, took metformin, or did nothing. The decision aid had icons to represent 100 adults in each category and shaded in how many people in each category would go on to develop diabetes. Brief text described each situation.

The back side of the decision aid used open-ended questions to prompt patients to identify needs related to type 2 diabetes prevention and define next steps they should take, such as “talk to my medical provider,” “join a diabetes prevention program” and “take a medication to prevent diabetes.” The text used plain language and was written at a fourth-grade reading level.

The results: There was a greater intention to participate in lifestyle interventions among all subgroups, but the increase was only significant among Spanish-speaking participants and those with low educational attainment, two groups that are often underrepresented in clinical research, according to the study, “Development and Evaluation of a Prediabetes Decision Aid in Primary Care: Examining Patient-Reported Outcomes by Language Preference and Educational Attainment.”

The study was co-written by family physician Kate Kirley, MD, the AMA’s director of chronic disease prevention. Among the 25 patients who had a follow-up office visit within six months, 32% enrolled in an intensive lifestyle intervention program and 16% received a prescription for metformin.


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“Such decision tools that are effective for underserved groups may promote health equity in diabetes prevention, which should be the focus of future research,” the study’s authors wrote.

**More confident decision-making**

The prediabetes decision aid also helped take away some of the uncertainty individuals face when making medical decisions, the study showed.

“The current study found a four-fold greater reduction in decisional conflict than that reported in a recent Cochrane meta-analysis of 115 decision aids spanning a wide range of clinical conditions,” study authors wrote. “This comparison to a large prior literature on decision aids highlights the clinical significance of this study’s findings.”

With 88 million adults with prediabetes in the United States, finding ways to help patients before they develop type 2 diabetes is important. Among that population, the annual risk of developing type 2 diabetes is 5% to 10%. The lifetime risk of developing the disease is up to 70%.

Major clinical trials have shown that intensive lifestyle interventions can reduce diabetes incidence by as much as 58%; metformin can reduce diabetes incidence by as much as 31%. Yet recent reports estimate that less than 5% of adults with prediabetes use either of these tools to reduce their risk of developing diabetes, with lower uptake and less weight loss among Hispanic populations and patients with low educational attainment, the study said.

The study calls for further research on the decision aid, including looking at its impact on long-term changes in patient-reported outcomes, treatment adoption and metabolic endpoints, including weight and glycemic measures.

The AMA's Diabetes Prevention Guide supports physicians and health care organizations in defining and implementing evidence-based diabetes prevention strategies. This comprehensive and customized approach helps clinical practices and health care organizations identify patients with prediabetes and manage the risk of developing type 2 diabetes, including referring patients at risk to a National DPP lifestyle-change program based on their individual needs.