DPP Models Deliver Modest Weight Loss

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FROM HEALTH AFFAIRS

Structured lifestyle interventions based on the U.S. Diabetes Prevention Program's curriculum were effective at promoting clinically significant weight loss of approximately 4% when applied in real-world settings, according to a meta-analysis.

The U.S. Diabetes Prevention Program conducted a clinical trial in 2002 showing that modest weight loss through caloric restriction and increased physical activity reduced the incidence of diabetes in high-risk patients by 58%. Weight loss was found to be the single most important factor in preventing diabetes from developing over the course of 3 years among patients who were at high risk for the disease. For every kilogram of weight lost, the incidence of diabetes decreased by 16%.

"Yet these results have not been 'translated' into routine clinical practice and public health policy," said Dr. Mohammed K. Ali of Emory University, Atlanta, and his associates.

They performed what they described as the first meta-analysis of U.S. studies in which the structured intervention recommended by they Diabetes Prevention Program was applied to high-risk patients in real-world settings. The meta-analysis included 28 studies published in 2003-2011.

In all, 4 were randomized, controlled trials (RCTs), 2 were cluster RCTs, 20 were single-group studies comparing preintervention and postintervention weight, and 2 were nonrandomized, controlled studies.

Most of the studies were conducted in urban areas. In all, 12 were based in community centers, recreation centers, and church organizations, and 11 were based in health care facilities. The total number of patients was 2,916, and the median study duration was 1 year.

Across all the reviewed studies, the mean weight loss was 3.99%, which is considered clinically meaningful, Dr. Ali and his colleagues said (Health Aff. 2012 [doi:10.1377/hlthaff.2011.1009]).

Weight loss was comparable among programs that used medical and allied health professionals to implement the intervention (average 4.27% weight loss), programs that used lay community educators (3.15% weight loss), and programs that used electronic media-assisted interventions (4.20% weight loss).

Moreover, sensitivity analyses showed that programs with lay community educators achieved greater weight loss than those with medical and allied health professionals as educators. That finding "has enormous importance for the scalability and economic sustainability of diabetes interventions," Dr. Ali and his colleagues noted, because lay educators required lower salaries and their training was neither costly nor time-consuming.

Programs that included more "core sessions" in which patients received

Glucose Monitor With Remote Alert

A glucose monitor that can be monitored remotely from another room and is intended for use with a specific insulin pump has been approved by the Food and Drug Administration, the manufacturer, Medtronic, has announced.

A press release issued by the company said that the glucose monitor enables parents or caregivers to monitor the status of an individual's insulin pump and glucose trends, with alerts and alarms that can alert them at their bedside if, for example, the glucose levels of a child or adult sleeping in another room are dropping in the middle of the night.

The device is being marketed as the "mySentry Remote Glucose Monitor," and is used with the MiniMed Paradigm Real-Time Revel System, an insulin pump with a continuous glucose monitor, the Medtronic statement said. At press time, there was no notice of the approval on the FDA's website.

–Elizabeth Mechcatie