Intervention Cut ED Visits for Blacks With Diabetes

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SAN DIEGO — An intensive intervention conducted by a nurse case manager and community health worker over 18 months helped reduce visits to the emergency department, and possibly hospitalizations, among urban African Americans with type 2 diabetes, Tiffany Gary, Ph.D., reported at the annual scientific sessions of the American Diabetes Association.

"This intervention is designed to test a novel approach to improve diabetes care in urban African Americans," said Dr. Gary of Johns Hopkins University, Baltimore. "The final results from our 24- and 36-month studies will determine the significance."

She and her associates randomized 542 African Americans with type 2 diabetes to either an intensive intervention group or a minimal intervention group.

Participants in the minimal intervention group received reminders every 6 months about preventive screenings in the form of mailings and phone calls from a lay health educator with a high school education.

Participants in the intensive intervention group received individualized care from a nurse case manager and a community health worker. The nurse case manager saw the patients in the clinic yearly, Dr. Gary said.

"She used algorithms and intervention action plans that were standardized and evidence based," she added.

The nurse case manager also provided written feedback to the primary care physicians, as well as verbal feedback, e-mails, and pages as necessary.

The community health workers were high school graduates who were native to the communities of Baltimore. "They saw the participants in their homes and in the community," Dr. Gary said. "They also implemented standarized algorithms and action plans. However, their focus was to hone in on the family environment and social support."

Current estimates suggest that the yearly cost of the program is about $608 per patient, but data are still being analyzed.

The study was carried out in six primary care clinics affiliated with a managed care organization in Baltimore. It remains to be seen whether the intervention is cost effective and could be used in other settings and patient populations, Dr. Gary noted.

Community health workers saw study participants in the home and community. Their main task was to hone in on the family environment and social support.

Participants in both interventions attended a baseline and follow-up interview, where the investigators obtained data on demographics, health care use and behaviors, and clinical characteristics. They also obtained data on diabetes-related emergency department visits and hospitalizations.

At baseline, participants had a mean age of 58 years and most (74%) were female. About one-third (35%) had annual household incomes of less than $7,500 per year, and 33% were married.

More than half (57%) had hemoglobin A_{1c} levels higher than 7%; 73% had blood pressure readings greater than 130/80 mm Hg, and 77% had HDL cholesterol levels that exceeded 40 mg/dL.

In addition, 39% reported at least one visit to the emergency department within the past year, and 23% reported having a diabetes-related hospitalization within the past year.

At 18 months, no significant differences were seen between the two intervention groups in terms of hemoglobin A_{1c} levels, blood pressure, or lipids.

However, those who participated in the intensive intervention group had significantly fewer visits to the emergency department, compared with their counterparts in the minimal intervention group, which translated into a rate ratio of 0.78.

A trend toward fewer hospitalizations was also seen among those who participated in the intensive intervention group, compared with their counterparts in the minimal intervention group, but the rate ratio of 0.84 did not reach statistical significance. ■