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"The Community Guide and Personalized Educational and Experiential Modules for Diabetes Management"

In recognition of the increasing prevalence of diabetes in the Akron Metropolitan area, the GAR Foundation (Akron, OH) funded the development, implementation, and evaluation of an educational and experiential diabetes management program, by the Austen BioInnovation Institute in Akron, Center for Community Health Improvement. The program, led by a multidisciplinary team, was offered to 26 participants at three diverse clinical sites and included education on diabetes, techniques for self-management, and information on and experience with nutrition and exercise and stress reduction for emotional wellness. In addition to educating individuals in the community with diabetes, the other goal of the project was to improve system level practices at each site in adherence to national standards of care. The innovation of this successful program focused along implementing best practices for a multidisciplinary team with impact on both the individuals living with diabetes and the transformation of the practices in which those individuals received their primary care. This was a prospective, pre- and post-test study of the effects of the program on both the patients and the practices, using practices outlined in The *Community Guide.*

We revised national programs using The *Community Guide* to assist us in tailoring the intervention to the needs of our population. There were 12 two-hour sessions at each of three sites held between July and December 2011. We met at the site from which the participants were recruited, which made it convenient and comfortable for participants and their healthcare providers. Because The *Community Guide* Task Force Finding indicated that "interventions were rarely coordinated with the patient's clinical care provider," we coordinated the care and helped increase the communication between the practitioners and their patients. We were patient-oriented, provider-oriented, and included family and friends in the program.

Participants were recruited from three sites, which functioned as community meeting places: The University of Akron Nursing Center for people without health insurance, Summa Health System Family Medicine Center, and Akron General Medical Center for Family Medicine. Therefore, private pay, public insurance, and no insurance participants were included. Each site identified patients who might be interested in participating and shared information about potential participation. The sites were two family medicine sites and one advanced practice nursing site, another example of the multi-disciplinary aspects of this program. The family medicine sites were led by a DO and a MD. The Nursing Center site lead was a MSN RN CNS. A practitioner from each site led one of the sessions, "Getting the Best Care for Your Diabetes," at that site. Information on tests and frequency of testing, foot care, eye care, and skin care was presented. The practitioners from each site also discussed how to partner with the participants' healthcare providers and included site-specific information.

Each session was 120 minutes and based on the *Road to Health* and *Diabetes Prevention Project* [1-3]. Topics covered included diabetes, making changes in behavior (e.g., exercise and food choices), goal setting, body mass index (BMI), stress and mood management, self-monitoring, medication adherence, recognizing and managing symptoms, mindfulness, and preventing complications. Each session included a "Fit Minute" designed and led by an exercise physiologist, a "Nutrition Bite" designed and led by a dietitian, a healthy small meal as designed by a dietitian, and educational components designed and led by a sociologist. Three sessions had "guest" speakers: "Getting the Best Care for Your Diabetes" was led by a practitioner from each site; "Strategies for Healthy Eating" was led by a dietitian; and "Complications," which focused on avoiding complications by stress and mood management through mindfulness, was led by a mindfulness expert.

In addition to the diversity of the sites, the participants served at each site differed. The University of Akron site serves those without health insurance; some of the Summa participants had some form of health insurance (both public and private) and some did not, while seven Akron General participants had group health insurance, and one was covered by Medicare.

The program was received well by participants, and participant results were encouraging.

- Pre- and post-chart review included
  - decrease in Hemoglobin A1c (n = 14) -.386 + .994 (range -5.4 to 0.6)
  - decrease in LDL cholesterol (n = 16) -11.60 + 37.53 (range -68 to 49)
- Personal outcomes collected information included
  - 14 participants lost a total of 115.1 pounds and 22.8 points BMI
  - 16 participants lost 25.26 inches from their waists
- Participant attendance
  - 20 of the 26 participants (76.8%) attended 8 or more sessions
  - 9 (34.6%) had perfect attendance
- Self-reported findings involved
  - Increase in exercise
  - Increase in healthy eating and 5-6 small meals per day
- Pre- and post-program survey results included
  - Increase in knowledge about diabetes

At the site practice level, results included participants' assessments of the practice and suggestions for practice improvement as a Quality Improvement tool. Evaluation of practice adherence to The National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) measures defined for diabetes care was based on the percentage of adults 18–75 years of age with diabetes (type 1 and type 2). Across all three practice sites, compliance to these measures was high with practices exceeding recommendations for Hemoglobin A1c testing and control, LDL cholesterol testing and control, and blood pressure control.

This was a promising evidence-based intervention that was well received by participants because it used recommendations from The *Community Guide* and involved a multidisciplinary team to present and implement the educational and experiential components. This was a high impact solution to the increasing prevalence of diabetes that contributed to the participants' improved disease self-management and increased self-efficacy.

References

1. Centers for Disease Control and Prevention, *Road to Health Training Guide*. 2010, U.S. Department of Health and Human Services: Atlanta, Georgia
2. National Diabetes Information Clearinghouse, *Diabetes Prevention Program (DPP)*. 2008, U.S. Department of Health and Human Services, National Institutes of Health. p. 6.
3. Diabetes Prevention Program, *DPP Lifestyle Materials*. 1996, University of Pittsburgh.