Healthy Eating and Active Living for Diabetes in Primary Care Networks

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The Healthy Eating and Active Living for Diabetes in Primary Care Networks (HEALD-PCN) program is an innovative research study that will help to inform how decisions are made in Alberta around the delivery of physical activity and nutrition programs for people with diabetes, in a new and emerging model of health care.

The study will comprehensively evaluate clinical, economic and implementation outcomes, and will serve to establish effectiveness of a theory-guided (social cognitive) self-management program for those with type 2 diabetes in a community-based, primary care setting.

Exercise specialists are currently delivering the HEALD program in three different primary care networks in Alberta. Recruitment is now completed in one PCN. There are currently 100 participants in the HEALD-PCN project. Patient recruitment will continue until the winter of 2011-12, with the aim of adding 150 additional participants.

The program is based on a pilot study that showed when people took part in a program targeting total daily steps for 12 weeks and then, for another 12 weeks, walking faster for 30 minutes three times a week, their body weight, blood pressure and resting heart rate were reduced (Johnson, Bell, McCargar, Welsh & Bell, 2009).

In essence, this earlier research helped to show that a pedometer-based walking program could help ensure that people with diabetes are walking at the right intensity level and speed (i.e., moderate to vigorous) to gain health benefits.

The Link Between HEALD and PCNs

In 2003, Alberta Health and Wellness, the Alberta Medical Association and Alberta Health Services established the Primary Care Initiative (PCI) to improve access to family physicians and other frontline health care providers in Alberta. There are 40 Primary Care Networks (PCNs) operating throughout Alberta, with another five in the planning stages. By 2011, the goal is for 80% of all Albertans to receive care from PCN teams.

The emphasis within these PCNs is health promotion, disease and injury prevention, care of patients with medically complex problems, and care of patients with chronic disease.

Diabetes is a target condition that will be used to evaluate the effectiveness and performance of recently established PCNs.
Study Phases

For the HEALD study, diabetic patients from PCNs located in St. Albert-Sturgeon, Leduc-Beaumont, Devon, Camrose and Fort Saskatchewan, Alberta will be assigned to either a control group where they will receive their usual health care or the HEALD program over a six-month period.

Those who enter the HEALD program will participate in two phases, each lasting 12 weeks. In the first phase, a certified exercise specialist trained in delivering the HEALD program will lead two one-hour group sessions at a local recreational facility, in each of the communities where the PCNs are located.

- The initial sessions are intended to help patients set individual pedometer-based total daily step goals. Patients are then encouraged to try to meet their daily step goals for a period of 12 weeks.
- After the initial 12 weeks, patients will attend two group sessions where they learn how to increase their walking speed (with the help of a pedometer) and about how to use the glycemic index to help manage their diet.

All sessions are provided free-of-charge and include day passes to the community recreation facility.

Measuring Results and Cost Effectiveness

To determine the success of the study, a number of variables will be measured:

- Physical activity will be measured with self-report questionnaires and pedometers.
- A food frequency questionnaire will be used to determine dietary intake.
- Clinical (i.e., glycated hemoglobin, lipids, blood pressure, resting heart rate, body weight and waist circumference) and psychosocial variables will be measured at three-month intervals over the study period.

Information on the cost of the program in the primary care context, as well as subsequent health care utilization, will be gathered through linkage with administrative data in the Alberta Diabetes Surveillance System, or ADSS (www.albertadiabetes.ca).

Such information will be used to estimate the cost-effectiveness of the program, using a previously developed diabetes economic forecasting model for Alberta. The RE-AIM (Reach, Efficacy, Adoption, Implementation and Maintenance) approach will be used to evaluate the implementation of HEALD-PCN.

Implications

As an emerging model of primary care in Alberta, PCNs present an ideal environment for enhanced access to care, with specific roles and responsibilities for various aspects of care and education assigned to the most relevant health professionals (e.g., exercise specialists).

Ultimately, the HEALD study (and other studies of this type) will serve as a platform and framework upon which an emerging model of care can incorporate effective and efficient chronic disease prevention and self-management in the primary care setting. Perhaps most importantly, the HEALD study will help to answer questions around program sustainability.

About the Authors

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