Implementing Diabetes Self-Management Education in Primary Care

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Self-directed health care accounts for a large part of diabetes management. People with diabetes are responsible for most day-to-day decisions related to the management of their disease. Historically, however, management of diabetes has been viewed primarily as the responsibility of providers. More recently, patient-centered and team approaches have gained attention. Endocrine clinics have provided patient-centered care by a multidisciplinary team that usually includes a diabetes educator.

This type of care is not available in most primary care offices, however, although most people with diabetes receive their care from primary care providers (PCPs). In fact, ~90% of diabetes care is delivered by PCPs, and diabetes accounts for ~3% of all primary care visits.1 According to the Centers for Disease Control and Prevention, the average time of patient visits with a general or family practice provider in 2002 was 16.1 minutes. Of all primary care office visits, 14.3% include diet or nutrition counseling, 10% include exercise counseling, and 3.6% include weight-reduction counseling.1

Research has shown that PCPs may be offering advice on risk reduction rather than specific education and skills to affect behavior change.2 With the need for patients with diabetes to attend to multiple disease processes and the inherent time limitations in primary practice, patients may not be receiving the education and skills training they need to adequately care for their diabetes.3 The skill set required for diabetes is a complex one requiring problem-solving skills and the use of multiple technologies for blood glucose testing and medication administration. These issues present diabetes management challenges in the primary care setting that call for additional professional support to promote improved self-care skills and outcomes for people with diabetes.

One of the goals of Healthy People 2010 is to increase the number of people reached with diabetes education from 40% in 1998 to 60% by 2010.4 Although diabetes self-management education (DSME) is recognized as a crucial component in diabetes care,5 the number of patients who receive diabetes education is disappointingly low.6

Lack of access to education has been proposed as a potential barrier to reaching people with diabetes, particularly in communities where the closest DSME hospital-based program may be miles away.7 The Task Force on Community Preventive Services8 found that DSME is effective in improving glycemic control for adults with type 2 diabetes when delivered in community gathering places. Primary care practices are one accessible
community location for provision of DSME.

Patients and providers at the University of Pittsburgh Medical Center (UPMC) in Pittsburgh, Pa., identified lack of diabetes education as a barrier to the promotion of quality diabetes care. Multiple barriers were proposed that could potentially limit DSME access, including location, parking, walking distance, provider and practice awareness of DSME programs, patient expectations of DSME, frequency and scheduling of programs, and reimbursement issues. Educators at UPMC proposed a plan to integrate a nurse certified diabetes educator (CDE) and a registered dietitian (RD) to provide DSME in a primary care practice. In a primary care setting, a diabetes educator could also serve to educate office staff and work directly with patients and providers to improve diabetes care.

The increase in the prevalence of diabetes and the need for lifestyle interventions and health care delivery modifications call for collaboration between providers and diabetes educators. This article describes how diabetes educators at UPMC developed a DSME program for primary care.

Setting

UPMC is composed of 19 hospitals and a large network of other patient care services. The UPMC system includes 21 DSME programs recognized by the American Diabetes Association (ADA). Approximately 80,000 people access diabetes care through the UPMC health system annually. Although UPMC has actively supported and marketed the ADA DSME programs in an effort to reach the Healthy People 2010 objective for diabetes education, the number of patients who have received DSME at the programs has been disappointing. Some of the well-established UPMC DSME programs have high demand and utilization, but many programs do not to the extent that reflects the population of people with diabetes in their respective communities.

In 2003, meetings were held with the providers of Community Medicine, Inc. (CMI), a group of UPMC-managed primary care practices, to discuss the state of diabetes management in primary care settings and to look for methods to improve care and outcomes. CMI represents 68 primary care practices and 146 PCPs. Providers identified the need to implement DSME in the primary care setting to improve access to education. Although most of the providers were aware of DSME programs in close geographical proximity to their practice and referred patients to them, patients did not always follow through. Other providers were either unaware of the programs or the referral requirements that must be met for patients to attend DSME programs.

A DSME program implemented at a primary care setting was viewed as having the potential to address some of the access and care issues. One physician, a leader in quality improvement at UPMC, was willing to participate in the project and agreed to host a DSME program at his practice site. The practice is in an urban university setting and includes five full-time and two part-time PCPs.

Getting Started at the Primary Care Practice

The DSME program at this primary practice location began by having the nurse CDE educate providers and office staff about the role of a diabetes educator. At a meeting early in the planning process, decisions were made by the providers, office staff, and CDE about the frequency of the diabetes educator’s attendance, which patients should be seen, how patients would be scheduled, and where the CDE and RD would provide education and store supplies.

The nurse CDE began the program in 2003 by working at the practice 1 hour per day. An RD who was already providing nutrition education at the office was asked to be part of the educational team and was introduced into the project at the outset. Providers were encouraged to directly refer their patients to the nurse CDE and the RD as part of the comprehensive DSME program.

Education Visits at the Primary Care Practice

Patients were educated about the program through the providers, office staff, and signs posted in the office. They were informed that a CDE and RD were part of the DSME instructional team and that they were eligible to see both specialists in the office for diabetes-related education with a physician’s order.

An initial visit included an introduction and description of the role of the nurse and dietitian educators. Patients were asked what they expected and hoped to gain from the visit. An assessment of patient health care behaviors, knowledge, and health history took place. Initial visits sometimes also included evaluation of patients’ use of a blood glucose meter, insulin preparation, injection technique, or other skills. Education needs were identified and prioritized as discussed with the patient, and education was initiated on the first visit.

At the end of the initial visit, patients were also afforded the time to consider what had been discussed and were asked to identify a skill, behavior, problem, or goal that they wished to work on. Patients specifically described to the educator how they would approach the problem or initiate a change in their behavior in the period of time before the next visit. Patients were also asked to complete a patient goal/behavior change worksheet that was being used throughout the UPMC health system. As the program evolved, patients were also asked to complete the American Association of Diabetes Educators’ 7 Self Care Behaviors Goal Sheet.10

The UPMC DSME Program

In keeping with all of the UPMC DSME programs, DSME in the primary care practice was facilitated to meet the National Standards for DSME. The ADA recognition program provided the framework to implement the DSME standards.

In compliance with ADA recognition requirements, a UPMC central advisory committee had been established years before to support all UPMC DSME programs. This committee provides oversight and is responsible for developing an annual program plan, assessing the target population, and determining methods for continuous quality improvement.

The UPMC DSME programs are based on the University of Michigan Diabetes Research and Training Center curriculum. UPMC DSME program educators have been moving away from didactic educational programs to patient-engaged behavior change and problem-solving education, using this curriculum. Data are collected and reported to the committee by educators from each of the programs.

It took almost a year to set up the program in the primary practice and collect data required for the ADA program recognition application. The
Lessons Learned About DSME in Primary Care

**Individual and group visits**
Primary care offices provide an ideal setting to work individually with people who are hoping to effect change in their diabetes care behaviors and knowledge. Individualized DSME is supported under certain conditions by the Centers for Medicare and Medicaid Services regulations, although group education for DSME is the preferred method of delivery. Most primary practice settings do not have adequate space to hold group classes. Waiting rooms provide the space but do not always afford the privacy required by the Health Insurance Portability and Accountability Act of 1996.

UPMC educators solved the problem by scheduling group classes during hours when there were no patients in the waiting rooms. Group classes were held in waiting rooms and other large rooms that are not used for patient care in the primary practice setting. Community rooms, senior centers, churches, and libraries are other potentially conducive locations for DSME.

**Record keeping**
Working within the primary care office allows educators to access patient medical records, which can help to individualize education to each patient’s condition. Diagnostic testing values can be translated into real-time information for patients during education sessions. Medical record access and record keeping are important factors to address at the onset of a primary care DSME program.

It is necessary to first learn about office policies for charting and for accessing records. Primary practices, even within the same health system, may have different methods of charting and record keeping. Documentation may be done in longhand on a blank piece of paper, on specific documentation forms, through dictation, or within an electronic medical record.

Some providers dictate notes, which can make it difficult to access the most up-to-date progress notes. This can cause a void of important information if a physician sends a patient to see a CDE very soon after a medical visit. This has occurred most frequently at UPMC when a patient has an acute change in condition requiring new treatment therapies or a change in plan of care as a result of a primary care visit. It may take several days to find completed dictation on the chart. In an office with an electronic medical record, the most recent information is readily available. Communication with the provider can help the diabetes educator and patient plan an organized approach to the educational plan.

There are several advantages to providing DSME at the medical office. For example, patients’ diabetes education charts may be kept at their primary care office. Patient education issues can be communicated to the other educational team member through written messages, electronic notes, and phone calls. Clinical notes are readily available to each member of the team.

**Scheduling**
The office manager is the initial contact to help with the complexities of scheduling when establishing a DSME program in primary care. Scheduling can be done in an appointment book, but most offices now use system software programs for electronic scheduling. In the UPMC primary practice DSME programs, the CDE and RD have been added to the electronic schedules as providers. The office manager or scheduler is kept abreast of scheduling changes and times that must be built into the schedule template for documentation, lunch breaks, or meetings. To quickly solve scheduling problems, it is important for the primary care front desk staff and office manager to have contact information for the educators. Problems in scheduling occurred early in the UPMC project and were easy to resolve with good communication between the educators and office staff.

In the UPMC primary care project, initial visits with an educator are scheduled for 90 minutes. Return visits take 45 minutes. All attempts are made to stay close to scheduled visit times to prevent acute patient problems associated with delayed meal or medication administration times. At the end of a DSME visit, the patient and educator discuss when the patient will return for further DSME, if warranted. Most patients choose to return for 2-4 visits per year. A few patients wish to return monthly or on some type of ongoing schedule for behavioral support, although these services may not be covered by the health insurer.

**Billing**
Developing billing and payment strategies for DSME in primary care has been a challenging process. A task force was assembled 1.5 years ago at UPMC to examine the issues involved with billing at primary care settings. The task force included people representing diabetes education, finance, compliance, medical management, enrollment, coding/charge processing, compliance, and legal affairs, and it included representatives from two health insurers. Some of the problems that were identified were: contracting between UPDI (a division of UPMC and employer of the CDE) and UPMC CMI medical practices; capitation issues; dietitian and nurse educators employed through different departments; and some insurer authorization issues.

Much of the work has involved attention to the DSME coding systems. Coding of DSME services is identified by CMS as G0108 (individual DSME) or G0109 (group DSME). Most of our primary practices provide services to members representing many different insurance plans. Not all insurers recognize the “G” codes. The supervisor of coding/charge processing was brought in to develop a plan to map the Current Procedural Technology codes to specific billing codes for each insurer. This will allow all billing personnel to enter the G0108 or G0109 codes for DSME rather than knowing different codes that are distinct for each insurer. The computer software will translate the “G” codes to the specific code for each insurer. This should prevent confusion on the part of the many billing personnel who will be entering these charges into the system.

New issues have continued to arise about billing, reimbursement, and authorization from several UPMC departments and health insurers. As of January 2006, the program has been unable to fully operationalize
billing for DSME services in primary care offices, although systems are in place to begin the process in the near future. When the process begins, billing for the program will involve educating office staff about scheduling, coding, and billing.

Conclusion
The primary care DSME initiative has become an established service to people with diabetes in several primary care practices. The DSME programs are not yet financially self-supporting. Unexpected billing and reimbursement issues distinct to primary care have taken longer to clarify and resolve than initially expected. At the time of this writing, the support from many departments and staff members at UPMC was expected to allow new billing processes to begin in February 2006.

Diabetes educators are instrumental in providing information for diabetes knowledge and supporting self-care behaviors that may affect subsequent health behavior change. In a primary office setting, educators can educate, motivate, manage, and assist PCPs in meeting ADA standards of care for their patients with diabetes.

“Clinical inertia” or inadequate intensification of diabetes treatment therapy in primary care is a real issue.1,12 Diabetes educators can support PCPs’ efforts to intensify therapy and initiate insulin when appropriate. Having a diabetes educator at a practice site decreases barriers to DSME access for patients and for providers who are seeking these services for their patients.

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