Effective management of diabetes requires ongoing self-care which is often achieved through diabetes self-management education (DSME) and diabetes self-management support (DSMS).\(^1\) While DSME is most often provided by diabetes educators, DSMS can be given by appropriately trained community healthcare workers, health navigators, and office staff as well as by peer supporters.\(^1-3\) In an effort to enhance outcomes for people with diabetes by creating opportunities for access and sustainability of DSME and DSMS, diabetes educators and other healthcare professionals use evidence-based health care delivery models such as the chronic care model (CCM) (Figure 1).

Figure 1.
The CCM, as described by Wagner et al., provides a multifaceted framework of six interrelated elements that has been shown to improve processes and outcomes in diabetes management. The premise of the model is that quality care is not delivered in isolation but (1) creates a culture, organization and mechanisms that promote safe, high quality care, (2) assures the delivery of effective, efficient clinical care and self-management support, (3) promotes clinical care that is consistent with scientific evidence and patient preferences, (4) organizes patient and population data to facilitate efficient and effective care, (5) empowers and prepares patients to manage their health and health care, and (6) mobilizes community resources to meet needs of patients. The result of this shift in care is a productive interaction between a prepared proactive practice team and informed activated person with diabetes that drives clinical and functional improvement.

The CCM focuses on patient-centered care, patient empowerment, and self-management support. A growing body of evidence demonstrates that interventions that foster these principles improve health status in chronic diseases. It has been shown that programs emphasizing self-management provide an ideal framework for a systematic approach, and support the inclusion of all members of the diabetes health care team.

**Role of the Diabetes Educator in the CCM**

DSME and DSMS can be incorporated into different parts of the CCM, including primary care settings. The CCM has already been shown to be an effective framework for implementing and sustaining DSME programs. The diabetes educator, as part of the multidisciplinary team involved in the CCM, has been shown to have an impact on improving the clinical, behavioral, psychological/psychosocial, and diabetes knowledge outcomes in patients with diabetes. Table 1 provides examples and recommendations for diabetes educators who are using the CCM framework.
**Table 1. Examples/Recommendations for Diabetes Management and Care Applications Using the Chronic Care Model Framework**

| **Health System** | Visibly support improvement at all levels of the organization  
|                   | Promote effective improvement strategies aimed at comprehensive system change  
|                   | Encourage open and systematic handling of errors and quality problems to improve care  
|                   | Present outcomes of diabetes self-management education (DSME) and diabetes self-management support (DSMS) interventions to administration, board of directors, and stakeholders |
| **Delivery System Design** | Use planned interactions to support evidence-based care  
|                        | Ensure regular follow-up  
|                        | Give care that patients understand and that fits with their cultural background |
| **Decision Support** | Base care on evidence-based guidelines and apply to daily clinical practice  
|                      | Share evidence-based guidelines and information with patients to encourage their participation  
|                      | Integrate specialist expertise and primary care |
| **Clinical Information Systems** | Provide useful data about individual patients and population  
|                                 | Facilitate individual patient care planning  
|                                 | Share information with patients and providers to coordinate care  
|                                 | Document clinical, behavioral, and financial outcomes to show payers and other stakeholders the value of the services and return on investment |
| **Self-Management Support** | Support the development of informed, activated patients  
|                         | Emphasize the patient's central role in managing their health  
|                         | Use effective self-management support strategies that include assessment, goal-setting, action planning, problem-solving and follow-up  
|                         | Organize internal and community resources to provide ongoing self-management support to patients  
|                         | Assemble current diabetes management protocols, tools, and education materials that are user-friendly and at the appropriate literacy level to ensure the delivery of current, culturally sensitive, and consistent care |
| **Community Resources and Policies** | Form partnerships with community organizations to support and develop interventions that fill gaps in needed services  
|                                    | Assess community support and resources such as institutional funding and grants from community agencies, groups, or services  
|                                    | Help people with diabetes develop a community support network that includes family, friends, support groups, the faith community, and needed services such as transportation  
|                                    | Use of telemedicine to help provide greater access to care in rural settings |
The following list suggests ways diabetes educators and diabetes education may integrate with the chronic care model.

- Diabetes educators should collaborate with multiple stakeholders in their national and local health care systems and communities to provide more effective diabetes management and make better use of the health care system. Potential partners include federal and state government entities, organization administrators, hospitals, financial officers, information systems, insurers, physician groups, employers, community facilities, and policy makers. Diabetes educators are prepared to reach out to these organizations in order to play an active role in the CCM and to support and develop interventions that fill gaps in needed services.

- Diabetes educators should take a leadership role in improving quality of care by implementing components of the CCM in practice and by finding ways to integrate DSME/DSMS into primary care practice settings.

- Meaningful use of technology supporting a comprehensive clinical information system with ready access to key data on individual patients as well as populations of patients should be in place to provide effective chronic illness care (e.g. diabetes registry).¹⁹,²⁰

- Diabetes educators should include patients in the treatment decision discussions, supporting their more active role in managing their health and engaging them in behavior change goal setting, so they can understand the principles behind their care.

- Diabetes educators should play a key role in the decision support process, providing primary care providers with updates on evidence-based guidelines. Treatment decisions should be based on explicit, proven guidelines supported by clinical research (e.g. ADA practice guidelines).
As an accepted member of the multi-disciplinary team, the diabetes educator should have opportunity for input as they care for the patient with diabetes.

**Conclusion**

The diabetes educator teaches self-care behaviors to promote optimal health; the person with diabetes should be proficient in key self-care behaviors that include themes such as the AADE7 Self-Care Behaviors™: healthy eating, being active, monitoring, taking medication, problem solving, healthy coping, and reducing risk. Provision of DSME is critical in laying the foundation that promotes knowledge, skills, and self-care behavior change strategies. To increase the number of people who receive DSME, a comprehensive, systematic approach is necessary. The CCM offers an ideal framework to support DSME and DSMS because it provides a cogent basis on which to promote self-management based on the AADE7™ framework. Developing systems that incorporate accessible, sustainable DSME services that affect health outcomes has large-scale public health implications.

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