The Scope of Practice, Standards of Practice, and Standards of Professional Performance for Diabetes Educators

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Introduction

The Scope of Practice, Standards of Practice, and Standards of Professional Performance for Diabetes Educators has been developed by the AADE to define the scope, role, and minimal level of quality performance of the diabetes educator; to differentiate diabetes education as a distinct health care specialty; to promote diabetes self-management education/training (DSME/T) as an integral part of diabetes care; and to facilitate excellence in DSME/T. Representing the expertise and experience of a multidisciplinary task force of health professionals representative of the AADE membership and an extensive review process embracing a broad spectrum of practice areas, this document supports the specialty in the following ways:

- stimulating the process of peer review,
- promoting documentation of the outcomes of DSME/T and diabetes education,
- encouraging research to validate practice and improve quality DSME/T and diabetes care,
- engaging in a process of critical examination of current diabetes educator practice and professional performance, and
- complementing documents of other diabetes organizations

Diabetes education is unique in that its practitioners come from a variety of health disciplines. Diabetes educators

remain individually accountable to the standards set by the discipline and by national, state, local, and institutional regulations that define and guide professional practice. This document serves to guide diabetes educators' practice regardless of their professional discipline.

Background

Living well with diabetes requires active, diligent, effective self-management of the disease. Self-management is an important concept to emphasize because persons with diabetes make choices and act on choices that affect their health on a regular and recurring basis. Similarly, people with pre-diabetes must be engaged in recognizing and addressing individual risk factors and acting on choices that affect their health.

Effective self-management is a process that includes learning the body of knowledge relevant to the disease state, defining personal goals, weighing the benefits and risks of various treatment options, making informed choices about treatment, developing skills (both physical and behavioral) to support those choices, and evaluating the efficacy of the plan toward reaching self-defined goals.[1]

[1] AADE Diabetes Education Definition. http://www.diabeteseducator.org/DiabetesEducation/Definitions.html

DSME/T

Diabetes self-management training/education is the formal process through which persons with or at risk for diabetes develop and use the knowledge and skill required to reach their self-defined diabetes goals. The terms *diabetes self-management education* (DSME) and *diabetes self-management training* (DSMT) are often used interchangeably. The Scope of Practice and Standards (both the Standards of Practice and the Standards of Professional Performance) outlined in this document are meant to guide the individual diabetes educator's practice, whereas the National Standards for DSME[1] for which this was originated, were chiefly concerned with the structure and conduct of diabetes education programs process. The revised standards for diabetes self-management education to continue to reflect the structure, process, and outcomes format.

Diabetes self-management education/training

DSME/T is defined as an interactive, collaborative, ongoing process involving the person with diabetes and the educator(s). The process includes the following:

- assessing the individual's specific education needs,
- identifying the individual's specific diabetes self-management goals,
- education and behavioral intervention directed toward helping the individual achieve identified self-management goals, and
- evaluating the individual's attainment of identified self-management goals.

From the Report of the Task Force on the Delivery of Diabetes Self-Management Education and Medical Nutrition Therapy. Diabetes Spectrum. 1999;12:44-47.

Diabetes self-management training will vary according to the needs of the person with or at risk for diabetes, the educator's practice setting, and the local environment. Acute and ambulatory settings, home, and pharmacy settings as well as electronic media can be used effectively for both individual and group education. Group education is a teaching method in which 2 or more individuals with a common disease state or medical diagnosis participate in activities facilitated by educators and/or health care providers. Regardless of the setting, DSME/Tshould be an accessible, planned, individualized, documented, and evaluated activity.

Current Issues in Diabetes Education

In the field of diabetes education, the following topics are receiving much attention lately: the rising number of cases of pre-diabetes, metabolic syndrome, and diabetes in the United States; the possibilities of preventing and delaying the onset of type 2 diabetes; and the value of early and aggressive diabetes management. Although beyond the primary focus of this document, these topics affect the practice of diabetes education.

Diabetes epidemic. Today, 23.6 million people in the United States have diabetes—17.9 million diagnosed cases plus an estimated 5.7 million undiagnosed cases.[3]

Based on this estimate, the number of persons with diabetes represents 6.3% of the total US population and 8.7% of the population older than 20 years. Most people with diabetes (90%-95%) have type 2 diabetes.[3-5] Worldwide, the number of people with diabetes is expected to increase by 35% by the year 2025.[4] The CDC estimates that 57 million American adults meet the diagnostic criteria for pre-diabetes.[3,5] Pre-diabetes increases the risk for developing diabetes and is an independent risk factor for cardiovascular disease.[5-8]

Despite improvements in diabetes treatment, a recent report concluded that the proportion of adults in the United States with diagnosed type 2 diabetes that is controlled is inadequate and less favorable today than in previous years.[9] Diabetes remains the leading cause of new blindness, renal failure, and nontraumatic amputations in the United States. Hypertension, dyslipidemia, and obesity are highly associated with diabetes and pre-diabetes, as are other cardiovascular, cerebrovascular, and peripheral vascular diseases.[3,10] The annual economic burden of diabetes was estimated at more than $174 billion (direct and indirect costs) in 2007.[3,10]

Diabetes prevention. There are no proven methods to prevent or delay type 1 diabetes, although studies are under way and more are planned. There is, however, evidence suggesting that type 2 diabetes can be prevented or delayed. The Diabetes Prevention Program showed a 58% relative reduction in the progression from pre-diabetes to diabetes in the lifestyle group (which received intensive nutrition and exercise counseling) as well as a 31% relative reduction in the group treated with met-

formin.[11,12] A Finnish study likewise demonstrated a 58% relative reduction in progression to diabetes in intervention group subjects; these subjects were encouraged to lose weight, reduce dietary fat and saturated fat intake, increase fiber intake, and participate in regular exercise.[13] In the Troglitazone in Prevention of Diabetes study, there was a 56% relative reduction in progression to diabetes in subjects treated with a thiazolidinedione (TZD) and evidence suggesting that TZD treatment could prevent rather than simply delay the disease.[14] Additional clinical trials examining the impact of lifestyle intervention in the area of diabetes and obesity are under way. These include the Diabetes Prevention Program Outcomes Study and Look AHEAD (Action for Health in Diabetes), both funded by the National Institutes for Diabetes, Digestive and Kidney Diseases, and Stop Pediatric Type 2 Diabetes, supported by the National Institutes of Health.

Identifying people at risk for diabetes is the critical first step in preventing the disease. The term pre -diabetes was adopted in 2002 to describe impaired glucose tolerance or impaired fasting glucose, to promote awareness of the importance of pre-diabetes screenings, and to spread the encouraging news that diabetes may be preventable.[15]

Physical and behavioral characteristics used to identify persons at risk for diabetes and pre-diabetes include obesity, sedentary lifestyle, history of hypertension, dyslipidemia, family history of diabetes, gestational history, and ethnicity. These risk factors may be assessed by various means, including community health screenings, media campaigns, annual health maintenance examinations, and self-administered risk assessment tools.[6,15,16] Formal diagnosis of pre-diabetes or diabetes (in the absence of overt diabetes symptoms and elevated blood glucose levels) is made with either a fasting plasma glucose test or oral glucose tolerance test.[4]

Effective, safe, and low-cost interventions for preventing diabetes include changing nutrition and physical activity behaviors. Medications are also effective, and while not without risk, side effects are minimal. Use of a single agent for prevention may negate the need for multiple agents to treat overt diabetes and reduce future costs associated with diabetes complications. While recognizing that prevention strategies are not without cost or effort, the known substantial costs and burden of diabetes make the effort worthwhile.

Diabetes management. The importance of taking steps to prevent diabetes in the interest of public health is clear, but an equally important public health message is the need for early, aggressive management of diabetes to prevent the devastating complications of the disease.[10] The role of glucose control in preventing diabetes complications is supported by 2 large, prospective, randomized clinical trials: the Diabetes Control and Complications Trial (DCCT) and the United Kingdom Prospective Diabetes Study. Both studies demonstrated a clear association between blood glucose control and sustained, decreased rates of retinopathy, nephropathy, and neuropathy but with an increase in the risk of severe hypoglycemia and weight

gain.[17-19] Persistent benefits of a prior period of intensive therapy on the development and progression of microvascular complications in type 1 diabetes have been shown in the Epidemiology of Diabetes Interventions and Complications study, an ongoing follow-up of the DCCT cohort.[20-22]

Despite the risks, the clear value of aggressive control of blood glucose levels to prevent or delay diabetes complications has prompted increased demand for comprehensive, effective, and safe diabetes care from consumers, providers, and payers alike. While an expanding selection of pharmacologic agents and technologies (e.g., glucose monitoring systems, insulin delivery systems) has increased the therapeutic options for diabetes, they do not necessarily lessen the day-to-day challenges of diabetes management. Health care providers must stay abreast of ever-evolving treatment strategies and be prepared to help clients incorporate these strategies into their individual treatment plans. In an environment of rising health care costs and restricted health care resources, the challenges to people with diabetes and their health care providers are enormous.

Scope of Practice

The Scope of Practice for Diabetes Educators defines the specialty and provides a framework for appropriate and effective practice of the specialty. This statement on the scope of practice for diabetes educators is not a static set of rules and definitions; rather, it is a fluid frame-work that adjusts to reflect the multidisciplinary nature of diabetes care, the evolving body of knowledge and evidence for effective interventions, and the ever-changing (and increasingly challenging) health care environment.

The Scope of Practice for Diabetes Educators

- All health care providers need sufficient diabetes knowledge to provide safe, competent care to persons with or at risk for diabetes. As management of diabetes becomes increasingly complex, it is imperative that diabetes health care professionals be well educated and appropriately credentialed. Expertise in diabetes care develops through experience, continuing education, individual study, and mentorship.

- Diabetes educators:
  - use established principles of teaching and learning theory and lifestyle counseling to help clients
  - confidently and effectively work with the patient to manage the disease.
  - Provide instruction that is individualized for persons of all ages, incorporating cultural preferences, health beliefs, and preferred learning styles of the client.
  - Promote behavior change directed at successful diabetes self-management was formally adopted as the desired outcome of DSME/T in 2002.[19] Seven specific self-care behaviors, known collectively as the AADE7™ Self-Care Behaviors[i], along with 5 core outcome measures, have been defined to guide the process of DSME/T.[23,24] The Curriculum framework outlined in Standard 6 of the newly revised DSME standards reflect these self care behaviors. [2].

The primary goal of diabetes education is to provide knowledge and skill training that help individuals identify barriers and to facilitate problem-solving and coping skills to achieve effective self-care behavior and behavior change. It is the position of the AADE that all educators should measure the AADE7™ Self-Care Behaviors, both for individuals and in the aggregate, at least twice: preintervention and postintervention. These behaviors are listed below.

The AADE7™ Self-Care Behaviors

- Healthy eating
- Being active
- Monitoring
- Taking medications
- Problem solving
- Healthy coping
- Reducing risks

Additional follow-up measurements are ideal and should be applied as appropriate to the practice setting. By adopting the AADE7™ Self-Care Behaviors, educators are able to determine their effectiveness with individuals and populations, compare their performance with established benchmarks, and measure and quantify the unique contribution that DSME/T plays in the overall context of diabetes care.

Diabetes Educators

Diabetes educators are health care professionals who have achieved a core body of knowledge and skills in the biological and social sciences, communication, counseling, and education and who have experience in the care of people with diabetes.

Mastery of the knowledge and skills to be a diabetes educator is obtained through formal and continuing education, individual study, and mentorship. The role of the diabetes educator can be assumed by professionals from a variety of health disciplines, including, but not limited to, registered nurses, registered dietitians, pharmacists, physicians, mental health professionals, podiatrists, optometrists, and exercise physiologists. The diabetes educator is an integral partner in the diabetes care team.

The diabetes educator understands the impact of acute or chronic problems on a person's health behaviors and lifestyle and on the teaching/learning process. Such appreciation is essential for the development of a comprehensive plan for continuing education and cost-effective, self-care management.

Members of the various health disciplines who practice diabetes education bring their particular focus to the educational process. This widens or narrows the scope of practice for individual educators as is appropriate within the boundaries of each health profession, which may be regulated by national or state agencies or accrediting bodies. Regardless of discipline, the diabetes educator must be prepared to provide clients with the knowledge and skills to effectively manage their diabetes. Diabetes educators must possess a body of knowledge that spans across disciplines to provide comprehensive DSME/T. For example, dietitians who are diabetes educators provide instruction for insulin injection, insulin dosing, and medication side effects as well as provide nutrition

counseling. Exercise physiologists in the diabetes educator role may help clients develop a meal plan, and pharmacists may provide counseling and instruction about foot care.

Practice Options

Three practice options, which may overlap, are available to health care professionals who choose to specialize in diabetes care:

- diabetes educator,
- certified diabetes educator (CDE), and
- board certified in advanced diabetes management (BC-ADM).

These classifications are differentiated by educational preparation, formal credentialing, professional practice regulations, and the clinical practice environment.

It is the position of the AADE that all diabetes educators work toward formal certification. The diabetes educator and CDE are chiefly concerned with and actively engaged in the process of DSMT. The BC-ADM incorporates skills and strategies of DSMT into the more comprehensive clinical management of people with diabetes. Differences in the preparation, scope, and practice of diabetes educators (certified or not) and BC-ADMs may make dual credentialing desirable for some. For example, a diabetes educator or CDE may also have the BC-ADM credential, provided he or she meets the academic and practice requirements for BC-ADM certification. Conversely, the BC-ADM may not necessarily be a diabetes educator as defined here. A more comprehensive description of each classification is given below. *

Diabetes educators may assume responsibilities beyond providing DSME/T to individuals. Program management; case management; clinical management; health care consultancy with other providers, organizations, and industry; public and professional education; public health and wellness promotion; and research in diabetes management and education are all important roles assumed by diabetes educators.

Certified diabetes educators, in addition to fulfilling the requirements of a diabetes educator, meet the academic, professional, and experiential requirements set forth by the National Certification Board for Diabetes Educators (NCBDE).[26] The NCBDE defines the criteria for certification as a diabetes educator. As part of the application process, a diabetes educator must document that he or she meets all the criteria for certification. An accepted applicant must demonstrate competency in the required body of knowledge and skills by means of a written examination.

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* The role of the professional diabetes educator may be augmented by community health workers (CHWs). Also called community health advocates, lay health educators, community health representatives, peer health promoters, community health outreach workers, and “promotores de salud,” CHWs bridge the gap between underserved individuals who have diabetes or are at risk for diabetes and health care resources. Community health workers also help inform the health care team and/or system about community needs and culturally relevant messages and programs. The American Association of Diabetes Educators (AADE) supports the role of diabetes community health workers (DCHWs) as integral to the health care team; the practice of the DCHW is out-side the scope of this document. Please see the AADE position statement for more information.[25]

Certification is valid for a period of 5 years and is maintained either through repeat examination or through documented participation in relevant continuing education activities every 5 years.

The BC-ADM is a credential available since 2001. The BC-ADM credential is the first advanced-practice certification offered to members of more than 1 discipline. Nurse practitioners, clinical nurse specialists, dietitians, and registered pharmacists may apply. In 1993, the AADE and American Diabetes Association convened a task force to examine the role of advanced-practice nurses in diabetes care and develop a way to formally recognize diabetes care as an advanced-practice nursing specialty. Recognizing that nonnursing health care professionals participate in diabetes care, the task force acknowledged the need for an advanced diabetes manager credential that includes nutrition and pharmacy as well as nursing.

With the American Nurses Credentialing Center (ANCC), the AADE conducted a role delineation study to determine the commonalities and differences among the eligible professional disciplines. The study identified differences in practice related to the areas of comprehensive physical examination, drug information (including interactions, adverse reactions, pharmacokinetic dosing, and drug profile assessment and refinement), health pro-motion and education, and medical nutrition therapy.

Four discipline-specific examinations are offered for the BC-ADM credential, reflecting the practice of comprehensive clinical management of individuals with diabetes. Candidates must document at least 500 hours of recent advanced-practice diabetes care. They must demonstrate skill in performing complete and/or focused assessments, recognizing and prioritizing complex data, and providing therapeutic problem solving, counseling, and regimen adjustments for people with diabetes. The educational preparation required to take the examinations is as follows: a master's degree in nursing is required for clinical nurse specialists and nurse practitioners, dietitians must have a relevant clinical master's degree, and registered pharmacists must have a doctorate of pharmacy degree. Upon verification of eligibility, candidates sit for a discipline-specific written examination administered by the ANCC. Certification is valid for 5 years. Recertification is by reexamination or through qualified continuing education activities as defined by the ANCC. Additional information about certification and recertification can be obtained directly from the ANCC.[27]

The BC-ADM practice is characterized by autonomous assessment, problem identification, planning, implementation, and evaluation of diabetes care, within the guidelines for BC-ADM practice set by the individual discipline. The process of using assessment data to independently derive a diagnosis or problem list is a key distinguishing aspect of BC-ADM practice. A diabetes care professional with a BC-ADM credential may or may not be a CDE. As

diabetes education is an integral part of diabetes care and management, the professional with the BC-ADM credential necessarily incorporates aspects of DSMT into his or her practice, either directly or through referral to another qualified diabetes educator.

Standards of Practice and Standards of Professional Performance

The Standards of Practice and Standards of Professional Performance for Diabetes Educators have been developed by the AADE to (1) define nationally acceptable standards of practice for diabetes educators and (2) ensure quality and accountability in the professional practice of diabetes education. The diabetes educator is individually responsible for adhering to these standards.

Standards of practice are authoritative statements that describe the competent level of practice and describe the responsibilities for which diabetes educators are accountable. Standards of practice reflect the values and priorities of the profession and pro-vide a framework for the evaluation and improve-ment of practice.

Standards of professional performance are defined statements that describe a competent level of behavior in the professional role. They describe the minimum level of performance expected regard-less of the setting, project, case, or situation.

Adapted from the American Dietetic Association Practice Definitions Task Force.[28,29]

The Standards of Practice for Diabetes Educators

The Standards of Practice for Diabetes Educators assists health care professionals and others involved in health care for persons with or at risk for diabetes.

Diabetes educator's gain

- a framework for professional practice,
- guidelines with which to assess the quality of their practice, and
- direction for improving practice.

Persons with or at risk for diabetes gain

- a basis for forming expectations of the DSME/T experience and
- a means to assess the quality of DSME/T services provided.

Health care professionals who do not specialize in diabetes management gain

- information about the role of the diabetes educator,
- an appreciation of the importance of DSME/T as an integral component of the clinical care of the person with or at risk for diabetes, and
- a way to assess the quality of DSME/T services provided.

Insurers, policy makers, purchasers, employers, government agencies, industry, and the general public gain

- a description of the specialized services provided by diabetes educators,
- an understanding of the importance of DSMT to improve quality of life and health care outcomes for persons with

or at risk for diabetes, and
- a description of how processes and outcomes of DSMT are systematically collected and evaluated.

Standard 1: Assessment

The diabetes educator conducts a thorough, individualized assessment of the person with or at risk for diabetes. The assessment process requires ongoing collection and interpretation of relevant data

Measurement Criteria

The diabetes educator

- collects assessment data in a systematic and organized fashion from the person with diabetes and, as appropriate, from family members, members of the client's social support net-work, existing medical records, and referring health care providers.
- addresses the following topics in the assessment:
  – health and medical history,
  – nutrition history and practices,
  – physical activity and exercise behaviors,
  – prescription and over-the-counter medications, and complementary and alternative therapies and practices;
  – factors that influence learning such as education and literacy levels, perceived learning needs, motivation to learn, readiness and health beliefs;
  – diabetes self-management behaviors, including experience with self-adjusting the treatment plan;
  – previous DSME/T, actual knowledge, and skills;
  – physical factors including age, mobility, visual acuity, hearing, manual dexterity, alertness, attention span, and ability to concentrate or special needs or limitations, requiring accommodations or adaptive support, and use of alternative skills;
  – psychosocial concerns, factors, or issues including family and social supports;
  – current mental health status;
  – history of substance use including alcohol, tobacco, and recreational drugs;
  – occupation, vocation, education level, financial status, and social, cultural, and religious practices; and
  – access to and use of health care resources.
- addresses the following topics when assessing persons with pre-diabetes:
  – the client's understanding of pre-diabetes and risks associated with pre-diabetes;
  – the client's understanding of the role of weight loss and weight management through nutrition modification and healthy eating in the management of pre-diabetes;
  – the client's habits and behaviors associated with physical activity and his or her understanding of the role of physical activity in management of pre-diabetes; and
  – motivation skills for maintaining positive behavioral change.

Standard 2: Outcome Identification

The diabetes educator works with the person with or at risk for diabetes to identify mutually acceptable DSMT outcomes. The outcomes reflect information obtained through the

assessment process. Outcomes also serve as a tool to evaluate progress toward individual, program, institutional, or community-level goals.

Measurement Criteria

The diabetes educator

- expresses outcomes in clearly defined measurable terms,
- defines specific behavioral objectives and actions in an educational setting,
- develops outcomes that are consistent with accepted diabetes practice guidelines,
- considers known and perceived risks and benefits of the pro-posed outcome,
- develops outcomes with consideration to resources avail-able to the client,
- defines outcomes that are appropriate to the client's state of health, and
- redefines outcomes as needed to best meet the client's needs.

Standard 3: Planning

The diabetes educator develops the DSME/T plan to attain the mutually defined outcomes. The plan integrates current diabetes care practices and established principles of teaching and learning. The plan is coordinated among the diabetes health care team members, the person with or at risk for diabetes, his or her family and other relevant support systems, and the referring provider.

Measurement Criteria

The diabetes educator

- addresses specific desired outcomes;
- identifies and describes specific instructional strategies to be used, which reflect the needs, skills, learning style, and preferences of the client (strategies may include but are not limited to discussion, demonstration, role-playing, and simulations);
- demonstrates respect for the client's culture, lifestyle, and health beliefs;
- uses measurable, behaviorally focused terms;
- recognizes the DSME/T plan as dynamic, and the plan reflects inevitable changes in clients' needs and goals;
- describes the process to be used for evaluation of effectiveness; and
- recognizes DSME/T as a lifelong process because of the chronic nature of the disease, evolving knowledge related to management of diabetes, and changing needs, desires, and abilities of the person with or at risk for diabetes.

Standard 4: Implementation

The diabetes educator provides DSME/T according to the defined plan and desired outcomes. Implementation may involve collaboration with other professional and community resources and services.

Measurement Criteria

The diabetes educator

- provides an accessible, safe, and appropriate environment for DSME/T;
- uses teaching materials appropriate to the learner's age, culture, learning style, and abilities;
- structures DSME/T to progress from basic safety and survival skills to

advanced information for daily self-management and improved outcomes;
- addresses basic diabetes self-management skills, including safe medication use, meal planning, self-monitoring of blood glucose, and recognizing when and how to access professional services;
- provides increasingly advanced DSME/T, based on the client's needs and goals, on topics including preventing and managing chronic complications, psychosocial adjustment, developing problem-solving skills, managing physical activity, adjusting treatment regimens (including insulin and oral diabetes medications), stress management, travel situations, and pattern management;
- provides opportunities for peer support;
- integrates the DSME/T plan into the overall plan of care;
- shares the diabetes educational plan and progress with refer-ring providers;
- establishes means for follow-up and continuity of DSME/T, including referrals to other providers; and
- may provide a format of group education for DSME/T, if desired, to foster the support, encouragement, and empowerment of clients—group education can lead to behavior change as participants share ideas and experiences.

Standard 5: Evaluation

For each client (individual outcome measures) and for the program (aggregate outcome measures), the diabetes educator evaluates the quality and outcomes of DSME/T according to the 5 Standards for Outcome Measurement defined by the AADE.[23,24]

Measurement Criteria

The diabetes educator

- measures behavior change as the unique outcome measurement for DSME/T;
- determines the effectiveness of DSME/T in the AADE7™ diabetes self-care behavior measures at individual, program, and population levels;
- evaluates diabetes self-care behaviors at baseline and then at regular intervals after the education program;
- assesses the continuum of outcomes, including learning, behavioral, clinical, and health status, to demonstrate the interrelationship between DSME/T and behavior change in the care of individuals with diabetes; and
- uses individual outcomes to guide the intervention and improve care for that client and uses aggregate population outcomes to guide programmatic services and for continuous quality improvement activities for the DSME/T and the population it serves.
- Establishes with the client , a personalized follow-up plan for ongoing self-management support, diabetes self-management support (DSMS) 2.

Standard 6: Documentation

The diabetes educator establishes a complete and accurate record of the client's DSME/T experience and follow up DSMS.

Measurement Criteria

The diabetes educator

- documents all components of DSME/T (assessment, planning

implementation, and evaluation);
- clearly identifies short-term, intermediate-term, and long-term outcomes;
- organizes the DSME/T record to allow for tracking of relevant individual outcomes;
- ensures that the DSME/T assessment, plan, outcomes, and prior implementation and encounters, including the DSMS, are accurate and available to others involved in the client's care, as appropriate (eg, to other members of the DSME/T team, to the client's primary provider, or to the referring provider);
- organizes documentation to facilitate prospective, concur-rent, and retrospective scientific and economic analyses; and
- ensures that documentation of specific client information and any release thereof complies with the federal Health Information Portability and Accountability Act (HIPAA).[30]

The Standards of Professional Performance for Diabetes Educators

The Standards of Professional Performance for Diabetes Educators assists health care professionals and others involved in providing health care to persons with or at risk for diabetes.

Diabetes educators gain

- a framework for personal/professional appraisal,
- documentation to facilitate the ongoing processes of performance appraisal and professional development, and
- direction for improving professional performance.

Persons with or at risk for diabetes gain

- documented support, via DSME/T research and continuous quality improvement activities, of evidence-based DSME/T practice.

Insurers, policy makers, purchasers, employers, government agencies, industry, and the general public gain

- a framework for evaluation of the performance of diabetes educators for institutional decisions affecting retention, pro-motion, transfer, salary increases or decreases, or admission into a training program and
- an assurance of the appropriate use of time, money, facilities, and human resources, which facilitates quality DSME/T services.

Standard 1: Quality of Care

The diabetes educator engages in an ongoing, systematic evaluation of the quality of care and the effectiveness of his or her own professional performance. The National Academy of Science's Institute of Medicine has defined quality in health care as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[31] The diabetes educator must consider both what is done (the content of the care) and how it is done (the process of care).

Measurement Criteria

The diabetes educator

- demonstrates excellence and professionalism in the practice of DSME/T through actions that are

consistent with established professional practice guidelines and established local, state, and federal regulations;
- identifies both process and outcome measures;
- systematically reviews, evaluates, and documents both processes and outcomes of DSME/T; DSMS
- implements appropriate actions to address discrepancies between planned processes and expected outcomes and actual processes and outcomes; and
- advocates for the provision of diabetes care and education as part of public policy.

Standard 2: Professional Performance Appraisal

The diabetes educator appraises his or her own performance to identify areas of strength and areas for improvement and to develop a plan for improvement and growth.

Measurement Criteria

The diabetes educator

- engages in planned, systematic self-evaluation at regular intervals to identify professional strengths and weaknesses;
- seeks and uses input from colleagues and clients in the self-evaluation process;
- identifies and describes specific needs for professional development;
- develops a plan for professional development and sets goals for further development; and
- documents findings and monitors professional appraisal and plans for professional development.

Standard 3: Professional Development

The diabetes educator assumes responsibility for his or her own professional development and pursues continuing education to develop and maintain DSME/T knowledge and skills.

Measurement Criteria

The diabetes educator

- develops, implements, and evaluates a plan for professional growth based on findings from the performance appraisal;
- pursues professional continuing education, progressing from basic through advanced curricula; and
- strives to meet academic, professional, and experiential requirements and to achieve and maintain certification with-in the diabetes specialty and documents professional development activities, which facilitates ongoing monitoring and awareness of progress to achieve personal and professional goals.

Standard 4: Collegiality

The diabetes educator recognizes and respects the unique knowledge and experience of professional colleagues from a variety of disciplines.

Measurement Criteria

The diabetes educator

- shares his or her unique diabetes knowledge and skills with colleagues (health care providers in related disciplines, students, interns, or other individuals in training), lay leaders, and policy makers involved in diabetes care programs, particularly when new therapies, information, and technological advancements in diabetes care occur;

- acknowledges and supports aspects of DSME/T provided by other team members;
- contributes to the development of students, interns, and other trainees through formal education and mentorship;
- collaborates with colleagues and clients to influence public policy so that quality and availability of DSME/T are improved; and
- provides constructive feedback to colleagues regarding practices to improve diabetes care.

Standard 5: Ethics

Ethical decisions and actions reflect the interests of the person with or at risk for diabetes. The AADE code of ethics represents the values of the diabetes education profession and provides guidance for professional behavior.[32]

Measurement Criteria

The diabetes educator

- respects and upholds basic human rights;
- demonstrates professional integrity
- maintains patient confidentiality;
- discloses all potential or perceived conflicts of interest when appropriate;
- respects the uniqueness, dignity, and autonomy of each individual; and
- accepts responsibility and accountability for professional competence.

Standard 6: Collaboration

The diabetes educator is one member of a group of professionals with shared responsibility for promoting and providing quality care to persons with or at risk for diabetes (the educator's clients).

Measurement Criteria

The diabetes educator

- participates in developing and maintaining a multidisciplinary team that may include (but is not limited to) nurses, dietitians, pharmacists, other health professionals, referring providers, and members of the community with special interest or expertise relative to the care of persons with or at risk for diabetes;
- articulates the role of the diabetes educator to the client, multidisciplinary team members, referring providers, and others;
- works in partnership with the client, his or her family, significant others, and other health care providers to define out-comes and processes to achieve them;
- promotes positive conflict resolution strategies to resolve differences;
- promotes delivery of consistent information among clients and health care providers;
- provides referrals for appropriate follow-up; and
- shares the diabetes education plan and progress with refer-ring providers.

Standard 7: Research

The diabetes educator, to enhance practice, seeks, critically evaluates, and applies research findings. The educator participates in research to enhance practice when appropriate.

Measurement Criteria

The diabetes educator

- seeks and critically evaluates research to enhance practice

and
- applies research findings to develop or revise policies, procedures, practice guidelines, protocols, education, behavior change strategies, and clinical pathways.

When appropriate, the diabetes educator

- identifies and prioritizes research problems,
- identifies sources and applies for funding for research questions,
- promotes research through alliances and collaborations with other professions and organizations,
- conducts research activities in compliance with human subject protection and HIPAA regulations, and
- reports research findings.

Standard 8: Resource Use

The diabetes educator uses resources effectively and efficiently.

Measurement Criteria

The diabetes educator

- identifies available and needed resources to support a personal plan for professional development,
- identifies available and needed resources to facilitate DSME/T, DSMS
- provides a teaching environment that addresses
  - client privacy, safety, and accessibility;
  - space requirements for teaching activities and storage of materials; and
  - client comfort, including but not limited to adequate lighting, ventilation, and furniture,
- incorporates available and emerging technologies into the DSME/T process,
- ensures that additional professional and support staff are appropriately trained to meet the needs of the client population,
- systematically documents resources used (including personnel, funds, materials, equipment, and space),
- justifies the need for additional resources through careful documentation of the impact of the resource on defined pro-gram goals, and
- provides information regarding appropriate and available diabetes care resources and services to clients, their support systems, and other professionals.

Summary

The Scope of Practice, Standards of Practice, and Standards of Professional Performance for Diabetes Educators supports the work of diabetes educators and others dedicated to excellence in the care of persons with or at risk for diabetes. As the understanding of diabetes, the treatment options, and the demand for diabetes services increase, the diabetes educator must be prepared to critically evaluate and challenge current practice standards and guidelines and be willing to explore new avenues to improve both processes and outcomes of diabetes care. Similarly, the scope and standards defined in this document have and will continue to evolve to meet the needs of diabetes educators and other health profes-sionals and, above all, to foster excellence of DSME/T to the benefit of persons at risk for and those with diabetes.

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