AADE 7™ Self-Care Behaviors

American Association of Diabetes Educators (AADE) Position Statement

Introduction

The American Association of Diabetes Educators (AADE) has defined the AADE 7 Self-Care Behaviors™ as a framework for patient centered diabetes self-management education and training (DSME/T) and care. The seven self-care behaviors essential for successful and effective diabetes self management are *healthy eating, being active, monitoring, taking medication, problem solving, healthy coping, and reducing risks*.[1-9] AADE 7 Self-Care Behaviors™ (AADE7™) provide an evidenced-based framework for assessment, intervention and outcome (evaluation) measurement of the diabetes patient, program, and population.[10-12] In addition, diabetes educator interventions can be organized according to the framework. This position statement describes the application of the AADE 7 Self-Care Behaviors™ framework in diabetes education and care; it also explores widespread extension to other chronic diseases and wellness.

Background/Definitions

In 1997, a workgroup of diabetes educators identified the seven self-care behaviors by mapping the 15 content areas of the 1995 National Standards for Diabetes Self-Management Education (NSDSME) with a review of literature, and expert consensus[12] The seven behaviors framework supported a paradigm shift in diabetes

education from a content-driven practice to an outcomes-driven practice. toward a focus on patient centered goals for facilitating behavior change that affects clinical and health related outcomes.[13,14]

AADE's 2011 Position Statement, "Recommendations for Outcomes Measurement of Diabetes Self-Management Education and Training," articulates standards for outcomes measurement of DSME/T.[11] The outcomes position statement directs educators to measure behavior change, as well as clinical and health status outcomes at regular intervals both pre and post intervention. DSME/T outcomes measurement of seven self-care behaviors is essential to determine the effectiveness of diabetes education at the individual and population levels.[10,11,15]

The importance of the AADE7 ™ to DSME/T Nomenclataure

The AADE 7 Self-Care Behaviors™ is widely accepted as standardized nomenclature that is incorporated into the definition of diabetes education.[16,17] The action oriented terms reflect patient centered self-management and provide a common language for communication, which cannot be overemphasized.[18-22] Diabetes educators are asked to account for the services and products that are delivered, as well as the effectiveness of outcomes. Although diabetes treatment programs are individualized, the AADE7™ provide a common framework to represent health and diabetes self-management related concepts that are frequently used.[17] AADE7 Self-Care Behaviors™ are terms and concepts that represent the process of diabetes self-management education, and are also used to describe outcomes. The use of a standardized terminology facilitates:

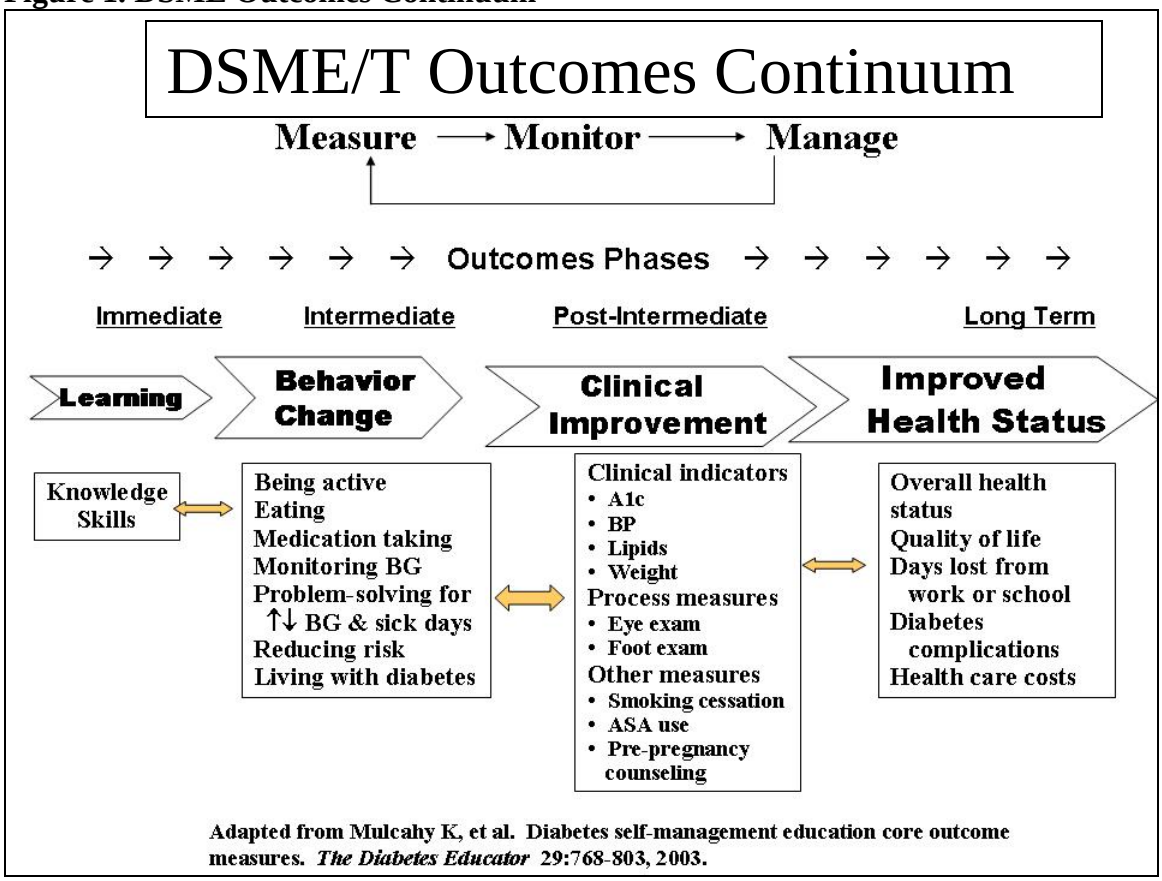
1. improved communication among health care professionals caring for the same patient, and between the patient and the diabetes care team;
2. the development of a knowledge base for DSME/T on a global level;
3. comparisons, research and the growth of evidenced based practice;
4. the ability to share information between practices and the development of benchmarks that help in the discovery of what constitutes best practice in the profession;
5. diabetes educators to make better sense of the practice of DSME/T at a global level where a single terminology can be used across regions and nations;[23]
6. communication to consumers, hospital and medical management, and third party payers by clarifying and defining process and outcomes of DSME/T;
7. documentation to effectively measure the diabetes education process for cross-mapping to other health care related fields.[19]

The Importance of AADE7™ in the DSME/T Outcomes Continuum

The DSME/T Outcomes Continuum links a sequence of outcomes from immediate (learning) outcomes through intermediate (behavioral) and post-intermediate (clinical) outcomes to long-term (health status) outcomes (Figure 1). Behavior has been defined as the primary outcome of diabetes education (with behavior change being the primary measurement) because in the care of chronic disease, it is the key element in attaining or maintaining desired levels of clinical parameters, and in turn health and health-related outcomes.[10,11] Behavior change is a consequence of a number of factors

which can be directly influenced by DSME/T, including not only diabetes self-management knowledge and skills, but also behavior change goals, treatment self-efficacy, and barrier management/resolution strategies.[24] Thus conceived, DSME/T consists of diabetes self-management support activities such as traditional pedagogy and skill-training, as well as behavior change strategies like goal-setting, problem-solving, and enhancing motivation. Knowledge and skills are important only to the degree that they facilitate appropriate self-management activities. Self-management activities such as the AADE7™, in turn, are important only to the degree that they facilitate clinical, health and health-related outcomes. The DSME/T Outcomes Continuum depicts an iterative process of measuring, monitoring and managing outcomes phases. AADE 7™ Self-Care Behaviors framework provides a clear view of where diabetes education fits into the diabetes care continuum.

Figure 1. DSME Outcomes Continuum



The Importance of the AADE7™ in Continuous Quality Improvement and Program Evaluation

The Continuous Quality Improvement (CQI) process provides a framework for systematically measuring, monitoring and managing the behavioral outcomes of the AADE7™.[25] The ultimate goal of CQI is to provide more effective and efficient service while ensuring optimal patient care.[26] The NSDSME specify that a written CQI plan describing a diabetes education program's process and outcome data be documented. [26] The impact of behavioral change described in the DSME/T Outcomes Continuum (Figure 1) best reflects how diabetes education affects clinical and health related outcomes. Specifically, the NSDSME call for annual CQI projects related to the assessment of behavioral outcomes for the entire population of patients served or for a representative sample. In this way, individual educators or programs can continuously assess the impact of their program as well as the progress of the program participants.[26] Tools such as the AADE 7™ System utilize the AADE 7™ Self-Care Behavior framework) and are designed to help educators collect and review behavioral outcome data for CQI purposes.[27]

Widespread Applicability in Health Care

The AADE7 ™ framework is applicable in the management of diabetes and many related chronic medical conditions and may be applied to the public health model.[28] Indeed, the AADE7™ Self-Care behaviors can be incorporated and/or modified for use in the management of any chronic health condition, health promotion, or wellness program that requires an emphasis on problem-solving, effective life-long coping, behavioral change,

and patient empowerment. The principles behind the AADE7 ™ are readily transferable to chronic medical conditions requiring patient self-management and behavioral change. Chronic medical conditions such as hypertension, hyperlipidemia, and heart failure also require those living with them to engage in healthy eating, physical activity, medication taking, self-monitoring, problem-solving, healthy coping, and risk reduction behavior.[29] This framework can be utilized in other disease states, such as asthma, chronic obstructive pulmonary disorder, osteoarthritis, and rheumatoid arthritis with modification that best fits the specific disease state.

Recommendations

1. The AADE 7™ Self-Care Behavior structure should be widely adopted because it provides the necessary framework for driving the profession, allowing for benchmarking, setting professional standards, and universal measurement of the effects of diabetes educators and DSME/T. It also provides consistent measures for conducting research to provide evidence for policy makers advocating for health care policy.
2. The AADE7™ framework is central to effective DSME/T and services provided by diabetes educators and it underlies:
    - Effective education processes and the delivery of DSME/T.
    - Assessments of the effectiveness of DSME/T at the individual, population and program levels. Educators are able to use the AADE7™ framework to measure behavior change, clinical, health status and other outcomes at regular intervals both pre and post intervention.

- Ongoing CQI efforts. It is the AADE position that at least one formal CQI project annually be related to the assessment of behavioral outcomes for the entire population of patients served or for a representative sample.

3. The AADE7™ provide standardized nomenclature for assessment, problem solving, barrier identification and resolution, goal setting, documentation, measurement, evaluation, quality improvement and policy making.[5] By doing so, diabetes educators serve as competent and professional care providers and, advocate for the profession. Standardized nomenclature gives the profession greater coherence and enhances the quality of care delivered to people with diabetes.
4. The AADE7™ framework is broadly applicable for those with diabetes and related chronic illnesses. Educators can use the AADE7™ to address other medical conditions because most require some education in most if not all of the 7 behaviors to assist in supporting or facilitating change of individually tailored self-care behaviors.
5. The AADE7™ framework can be adapted for health promotion and disease prevention strategies such as smoking cessation, obesity and weight management. In a broader scope of transforming the health system for populations, AADE7™ framework should be applied to populations by encouraging *healthy eating, being active,* surveillance and *monitoring* of outcomes, providing access to *medications* and medical care, assisting with community health *problem solving,* providing *healthy coping* within a strong public health system, and *reducing risks* and demand for medical care.

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References

Criteria for rating evidence and grading recommendations*

Level-of- Study Design or Information Type Evidence

1 Large randomized controlled trial (RCT); Multicenter trial; Large meta-analyses with quality rating
2 Randomized controlled trial that has some design or methodological flaws; Prospective cohort study; Meta-analyses of cohort study; Case-control study; Quasi-Experimental study (rigorous pre-post with a control group); Systematic review that is well designed
3 Methodologically flawed randomized controlled trial; Nonrandomized controlled trial; Observational study; Case series or case report; Review (note Cochrane reviews are systematic reviews that could qualify as Level 2 evidence)
4 Expert consensus; Expert opinion based on experience; Theory-driven conclusions; Unproven claims; Experience-based information; Opinion Piece

**This is not an exhaustive list – Reviewers will need to use their own judgment at times.*

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