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AADE Position Statement: Individualization of Diabetes Self-management Education

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AADE POSITION STATEMENT

Individualization of Diabetes Self-management Education

A ADE's Code of Ethics states that diabetes educators provide services with respect for the uniqueness, dignity, and autonomy of each individual. With regard to individualization of diabetes self-management education, AADE believes the following:

1. Diabetes self-management education is an essential component of care to achieve the outcomes desired by the person with diabetes, the diabetes educator, and other members of the health care team. Diabetes is a self-managed chronic disease requiring those who are affected to be active and informed participants in their own health care.
2. People with diabetes are not a homogenous group; they vary by type and treatment of diabetes; across cultural, psychosocial, demographic, intellectual, and other domains; and across the life span. They are best able to learn through a planned educational program individualized to match their personal characteristics, learning styles, and diabetes care plans. Like all other aspects of diabetes care, self-management education needs to be tailored to the individual.
3. Individualization of diabetes self-management education is the process of personalizing and tailoring the objectives, content, methods, materials, and follow-up to meet the needs of each participant and his or her family or support system. The educational process recognizes that people with diabetes have the right and responsibility to choose their own educational objectives and behavioral goals and be responsive to those objectives and goals. Individualization is equally appropriate and feasible in group or one-on-one diabetes self-management education programs.

Individualization is based on an assessment that addresses personal attributes related to each participant's ability to engage in diabetes self-care. These attributes include

- health status;
- attitudes, beliefs, experiences, and desire to participate in diabetes education;

This is an official position statement of the American Association of Diabetes Educators (AADE). AADE is a multidisciplinary professional membership organization of health care professionals dedicated to integrating successful self-management as a key outcome in the care of people with diabetes and related conditions.

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- psychosocial status;
- literacy and learning style;
- cultural and life span issues;
- personal metabolic and other goals; and
- self-care skills and access to resources.

Health Status

Health status may either facilitate or hinder diabetes education and self-management. Health status changes throughout the course of diabetes and the life cycle. It encompasses the acute and chronic complications of diabetes, other acute and chronic illnesses, and physical conditions such as diminished visual acuity, manual dexterity, mobility, and hearing ability.

Health status is likely to influence attitudes, health beliefs, goals, readiness, and ability to learn.¹⁻⁵ Other members of the diabetes care team, including health care providers, family, and support members, may also be influenced by these physical conditions.⁶ Health impairments often pose significant barriers to diabetes education and self-care, such as increased health care expenditures.⁷ Individualization of diabetes self-management education includes a thorough assessment of health status so that the program can be adapted as needed.

Acutely ill or hospitalized persons require only basic education when learning is impeded by physical factors such as lethargy, pain, or a decreased attention span that often accompanies illness. In these situations, it is appropriate to teach basic diabetes survival skills or very focused problem-solving skills while reserving more detailed education for follow-up sessions. Similarly, participants experiencing hypoglycemia or hyperglycemia may benefit from postponing comprehensive education until they are able to actively participate in the learning process.⁸

Most individuals will experience physical changes throughout the life cycle, such as diminished visual acuity, manual dexterity, mobility, and hearing ability. These physical changes may require either adaptation or relearning diabetes self-care skills.⁹ Periodic assessments of physical conditions and illnesses should thus be included in the overall design of an individualized diabetes self-management education program.

For many people with diabetes, the onset of a chronic complication or related illness may lead to psychological distress such as depression or anxiety.¹⁰⁻¹² In these situations, education is focused on the emotional aspects of living with diabetes while addressing the benefits and disadvantages of medication or other psychosocial therapies.

Attitudes, Beliefs, Experiences, and Desire to Participate

People with diabetes hold a wide range of attitudes and beliefs about diabetes that affect the way they perceive the need for and importance of self-management education. Participants' beliefs about the seriousness of diabetes, their perceived ability to affect short-term and long-term diabetes outcomes, and their attitude about the value of self-management education in preparing them to deal with their illness successfully will increase or decrease their desire to participate in diabetes self-management education.

Attitudes and beliefs of people with diabetes are shaped by their experiences. These experiences can include living with the disease, a family member with diabetes, reports in the media, or advice and anecdotes relayed by friends and acquaintances. Assessing participants' previous experiences with diabetes helps the diabetes educator understand the perceptions about diabetes that a participant brings to self-management education and to individualize the program accordingly. The assessment not only helps the educator decide whether that person is likely to be interested in learning but also helps the participant and educator decide which issues to address first.

Discussing past experiences with diabetes, attitudes, and beliefs; goals and concerns about diabetes; and interest in self-management education will help the educator both assess readiness for education and individualize that education to suit that person's particular needs.

Psychosocial Status

Social support, economic resources, stress, anxiety, and depression affect how a person will perceive diabetes and the need for self-management education. Both increased levels of stress and depression are common among participants with diabetes and can pose significant barriers to self-management education.^{11,12} While persons with diabetes need an appropriate sense of urgency to engage fully in diabetes self-management education, if they are overwhelmed by stress or highly anxious, they are unlikely to be able to participate fully.

Although health professionals recognize that people with diabetes find living with their illness distressing and difficult, even when they are able to manage it effectively, patients indicate that they would like to receive more help in the way of psychosocial support.^{11,12} Asking patients to describe what is concerning to them and assessing issues such as available support and resources

will help the participant and the educator to design a realistic self-management plan. Including significant others in the educational process as the participant desires may help to strengthen social support, as does providing information about appropriate resources.

People with diabetes have significantly higher levels of depression than the general population.^{13,14} Depression is serious and can and should be treated with medication, psychological counseling, or both. Clinically depressed persons are unlikely to have the intellectual and emotional resources necessary to engage in diabetes self-management education. Screening for stress, anxiety, and depression during the assessment process provides essential information to individualize the self-management education program at that time. Until depression or anxiety is adequately treated, the focus of the education should be, in most cases, survival skills.

Literacy and Learning Style

Educational objectives and methods need to be tailored to match the person's preferred learning style and literacy level. Literacy levels vary across a continuum of skills so that people generally cannot be classified as literate or illiterate. The concept of health literacy is particularly relevant for diabetes education and is defined as the ability to read, write, speak, compute, and solve problems to effectively participate in self-care.¹⁵ Low health literacy has been associated with poorer glycemic control among people with diabetes.¹⁶ Preferred learning style, language, cognitive ability, and literacy level are determined as part of the individualized assessment process.¹⁷

Some people prefer to learn by reading, others by listening, and others through a combination of listening and watching. In a group situation, providing content in multiple formats (eg, discussion, videotape, and written) can accommodate a variety of learning styles and abilities. Participants with limited health literacy levels, those with limited reading abilities, and those for whom English is not their first language benefit from tailored objectives; short, focused sessions; concrete illustrations; practical experiences; providing materials for reinforcement that do not require reading; and personalized messages that summarize key content.¹⁵ An effective communication style is the "ask, tell, ask" interactive learning model, in which the participant is asked to identify concerns or questions, the educator offers information or support, and

the participant is then asked to repeat or teach back the information.¹⁸

Persons who have limited health literacy may be more comfortable learning from other people with diabetes through small groups that include storytelling, group brainstorming, and problem solving. Participants with limited reading abilities may not learn well through reading, even when the materials are at the appropriate grade level, and they may prefer take-home materials that do not require reading (eg, videos). Providing materials at lower reading levels can be effective regardless of participants' literacy levels.

Participants who do not speak English benefit from individual sessions that include an interpreter or family member if the educational session is not provided in their preferred language or if the educator does not speak their language. Providing materials in both English and the participant's language increases their usability to family members or other members of their support system.¹⁹

Cultural and Life Span Issues

Culturally relevant educational methods, strategies, and programs need to be designed to match the developmental tasks and abilities of the target population. The effectiveness of information increases when it evolves from and is related to the participants' experiences, beliefs, and priorities.

Educational strategies vary across the life span. Children and adolescents benefit from age-appropriate information that matches their attention span and cognitive abilities. Education for preschool children is often based on questions and simple explanations of the child's experiences. School-aged children can learn through anchored instruction, play, games, puzzles, computers, and videos. Education for adolescents is focused on decision making and the effect of these choices on their current and future health, problem solving, and interacting with peers and family members. Incorporating psychosocial skills, stress management, and family interventions (eg, coping skills training) improves both quality of life and metabolic outcomes. Both young children and adolescents can benefit from group educational experiences designed for their age group, including camp experiences.^{20,21} Family involvement throughout the educational process is critical.

Adults generally prefer self-directed, problem-based education that is immediately relevant and applicable to their lives.⁸ Group education offers positive benefits for many adults of all ages.²²⁻²⁶ Older adults generally prefer

practical information focused on maintaining independence and quality of life.²⁷

Educational programs need to incorporate behavioral and affective components along with the clinical content.^{22,23,28,29} Providing behavioral, coping, and self-efficacy strategies as an integral part of self-management programs improves outcomes and promotes sustained behavioral and other changes among adults.⁸

Diabetes self-care is conducted in the context of cultural and religious beliefs and can impinge on such culturally defined phenomena as family relationships, food preparation and preferences, gender roles, and relationships with health care professionals. Culturally competent education begins with an assessment of cultural and religious beliefs that affect or influence diabetes self-management. Listening is important to learn about diabetes from the participant's point of view and avoid making assumptions based on ethnic background or gender, as is manifesting a caring, concerned, and respectful attitude. Culturally competent education provides a bridge between educators and participants and both recognizes and celebrates cultural influences on beliefs, behaviors, and diabetes self-care practices.¹⁹ Tailoring the intervention to the age and culture of the participants and including spouses and adult children may also increase the effectiveness of the program, as has been shown for older African American and Latino individuals with diabetes.³⁰

Personal, Metabolic, and Other Goals

Asking persons with diabetes what they hope to get out of the education program and their goals related to diabetes and its daily care guides the diabetes self-management education process and leads to self-directed, realistic goal setting. The individual's objectives and priorities for diabetes self-management education and care may differ from those of the health care team and published standards of care^{31,32}; however, the person with diabetes has the right and responsibility to make these choices.

Self-directed goal setting is an effective intervention to facilitate and support behavior change.³³⁻³⁷ Psychosocial status, health status, acceptance of the realities of diabetes care, and readiness to change help to determine the willingness of the person with diabetes to set and work toward behavioral, metabolic, and quality-of-life goals. Building the educational program around self-selected goals helps to maintain participants' interest in the education program and provides necessary knowledge and skills

for personal goal attainment. The AADE 7 provides a method to identify, document, and evaluate the effectiveness of education and the goal-setting process.³⁸

Self-care Plan and Access to Resources

Individualized diabetes education is tailored to match the character and complexity of the individual's self-care needs and management plan. People with diabetes who choose a treatment program that includes self-adjusted, multiple insulin injection management require a substantially different education program than those who manage their diabetes by medical nutrition therapy and physical activity. Financial resources and/or insurance coverage for diabetes equipment, supplies, medications, and education can limit and direct the education program. Limitations on the number and frequency of visits or regulation of group versus one-on-one sessions can alter the education plan and challenge efforts to provide the support needed to implement the self-care plan.³⁹

Summary

Individualization of self-management education

- promotes consideration of each participant's educational concerns and priorities,
- recognizes the expertise and unique perspectives that each participant brings to the process of self-management education,
- incorporates psychosocial and behavioral aspects, and
- helps to create collaborative partnerships between participants and diabetes educators that promote and sustain ongoing diabetes self-management.

References

1. Cox DJ, Kiernan BD, Schroeder DB, Cowley M. Psychosocial sequelae of visual loss in diabetes. *Diabetes Educ.* 1998;24:481-484.
2. Pham DT, Fortin F, Thibaudeau MF. The role of the health belief model in amputees' self-evaluation of adherence to diabetes self-care behaviors. *Diabetes Educ.* 1996;22:126-132.
3. Skelly AH, Marshall JR, Haughey BP, Davis PJ, Dunford RG. Self-efficacy and confidence in outcomes as determinants of self-care practices in inner-city, African American women with non-insulin-dependent diabetes. *Diabetes Educ.* 1995;21:38-46.
4. Swift CS, Armstrong JE, Berrman KA, Campbell RK, Pond-Smith D. Attitudes and beliefs about exercise among persons with on insulin dependent diabetes. *Diabetes Educ.* 1995;21:533-549.
5. Wallhagen MI, Lacson M. Perceived control and psychological functioning in African American elders with type 2 diabetes. *Diabetes Educ.* 1999;25:568-575.

6. Boyer BA, Lerman C, Shipley TE Jr, McBrearty J, Quint A, Goren E. Discordance between physician and patient perceptions in the treatment of diabetes mellitus: a pilot study of the relationship to adherence and glycemic control. *Diabetes Educ.* 1996;22:493-499.
7. Jones PM, Remley C, Engberg RA. Development and testing of the Barriers to Self-Monitoring Blood Glucose Scale. *Diabetes Educ.* 1996;22:609-616.
8. Anderson RM. Applied principles of teaching and learning. In: Franz MJ, Kulkarni K, Polonsky WH, Yarborough PC, Zamudio V, eds. *Diabetes Education and Program Management: A Core Curriculum for Diabetes Education.* 4th ed. Chicago, Ill: American Association of Diabetes Educators; 2001:3-18.
9. Ahroni JH. Strategies for teaching elders from a human development perspective. *Diabetes Educ.* 1996;22:47-52.
10. Peyrot M, Rubin RR. Levels and risks of depression and anxiety symptomatology among diabetic adults. *Diabetes Care.* 1997;20:585-590.
11. Alberti G. The DAWN (Diabetes Attitudes, Wishes and Needs) study. *Practical Diabetology International.* 2002;19(1):22-24.
12. Skovlund SE, Peyrot M, DAWN International Advisory Panel. Lifestyle and behavior: the Diabetes Attitudes, Wishes and Needs (DAWN) program. A new approach to improving outcomes of diabetes care. *Diabetes Spectrum.* 2005;18:136-142.
13. Lustman PJ, Clouse RE. Depression: a potentially modifiable risk factor for diabetes and its complications. *Diabetes Spectrum.* 2004;17:147-166.
14. Lustman P, Anderson RJ, Freedland KE, de Groot M, Carney RM, Clouse RE. Depression and poor glucose control: a review of the literature. *Diabetes Care.* 2000;23:934-942.
15. Pichert JW, Anderst JD, Miller S. Teaching persons with low literacy skills. In: Franz MJ, Kulkarni K, Polonsky WH, Yarborough PC, Zamudio V, eds. *Diabetes Education and Program Management: A Core Curriculum for Diabetes Education.* 4th ed. Chicago, Ill: American Association of Diabetes Educators; 2001:123-141.
16. Schillinger D, Grumbach K, Piette J, et al. Association of health literacy with diabetes outcomes. *JAMA.* 2002;288:475-482.
17. Mensing C, Boucher J, Cypress M, et al. National standards for diabetes self-management education. *Diabetes Care.* 2000;23:682-689.
18. Miller WR, Rolnick S. *Motivational Interviewing.* New York, NY: Guilford; 2002.
19. Robins LS. Cultural competence in diabetes education and care. In: Franz MJ, Kulkarni K, Polonsky WH, Yarborough PC, Zamudio V, eds. *Diabetes Education and Program Management: A Core Curriculum for Diabetes Education.* 4th ed. Chicago, Ill: American Association of Diabetes Educators; 2001:99-122.
20. Betschart JE. Diabetes during childhood and adolescence. In: Franz MJ, Kulkarni K, Polonsky WH, Yarborough PC, Zamudio V, eds. *Diabetes Education and Program Management: A Core Curriculum for Diabetes Education.* 4th ed. Chicago, Ill: American Association of Diabetes Educators; 2001:3-25.
21. Grey M, Kanner S, Lacey KO. Characteristics of the learner: children and adolescents. *Diabetes Educ.* 1999;25(suppl):25-33.
22. Norris SL, Engelgau MM, Narayan KMV. Effectiveness of self-management training in type 2 diabetes: a systematic review of randomized controlled trials. *Diabetes Care.* 2001;24:561-587.
23. Deakin T, McShane CE, Cade JE, Williams RDRR. Group based training for self-management strategies in people with type 2 diabetes mellitus. *Cochrane Database Syst Rev.* 2005;(2): CD003417.
24. Mensing CR, Norris SL. Group education in diabetes: effectiveness and implementation. *Diabetes Spectrum.* 2003;16:96-103.
25. Rickheim PL, Weaver TW, Flader JL, Kendall DM. Assessment of group versus individual diabetes education. *Diabetes Care.* 2002;25:269-274.
26. Erskine P, Daly H, Idris I, Scott A. Patient preference and metabolic outcomes after starting insulin in groups compared with one-to-one specialist nurse teaching. *Diabetes.* 2002;51(suppl 2):A-77.
27. Nettles AT. Diabetes in older adults. In: Franz MJ, Kulkarni K, Polonsky WH, Yarborough PC, Zamudio V, eds. *Diabetes Education and Program Management: A Core Curriculum for Diabetes Education.* 4th ed. Chicago, Ill: American Association of Diabetes Educators; 2001:103-124.
28. Brown SA. Interventions to promote diabetes self-management: state of the science. *Diabetes Educ.* 1999;25(suppl):52-61.
29. Norris SL. Self-management education in type 2 diabetes. *Practical Diabetology.* 2003;22(1):7-13.
30. Sarkisian CA, Brown AAF, Norris CK, Wintz RL, Mangione CM. A systematic review of diabetes self-care interventions for older, African American or Latino adults. *Diabetes Educ.* 2003;28:467-479.
31. American Diabetes Association. *Diabetes Education Goals.* 2nd ed. Arlington, Va: American Diabetes Association; 1995.
32. American Diabetes Association. Standards of medical care for patients with diabetes mellitus. *Diabetes Care.* 2001;24(suppl 1):S33-S43.
33. Anderson RM, Funnell MM, Butler PM, Arnold MS, Feste CC. Patient empowerment: results of a randomized controlled trial. *Diabetes Care.* 1995;18:943-949.
34. Anderson RM, Funnell MM, Nwankwo R, Gillard ML, Oh MS, Fitzgerald JT. Evaluation of a problem-based empowerment program for African Americans with diabetes: results of a randomized controlled trial. *Ethn Dis.* 2005;15:671-678.
35. Glasgow RE, Funnell MM, Bonomi AE, Davic C, Beckham V, Wagner EH. Self-management aspects of the Improving Chronic Illness Care Breakthrough series: design and implementation with diabetes and heart failure teams. *Ann Behav Med.* 2002;24:80-87.
36. Bodenheimer T, MacGregor K, Sharifi C. *Helping Patients Manage Their Chronic Conditions.* Oakland: California Healthcare Foundation; 2005.
37. Lorig KR, Ritter P, Stewart AL, et al. Chronic disease self-management program: 2-year health status and health care utilization outcomes. *Med Care.* 2001;39:1217-1223.
38. Mulcahy K, Maryniuk M, Peebles M, et al. Diabetes self-management core outcomes measures. *Diabetes Educ.* 2003;29:768-803.
39. National Diabetes Education Program. *Team Care: Comprehensive Lifetime Management for Diabetes.* Bethesda, Md: National Diabetes Education Program; 2001.