Anex

Standards and Norms for Diabetes Education Programs for People with Diabetes in the Americas.

By the DOTA Education Committee

Preface

The Declaration of the Americas on Diabetes (DOTA) is a recognition of the gravity of diabetes in the Americas and a commitment by the citizens of the region and their governments to implement strategies and actions capable of diminishing the socioeconomic costs of the disease and improving the quality of life of those who suffer from it.

In that context, DOTA subscribes to the necessity of incorporating education of people with diabetes as an indispensable aspect of treatment in order to achieve the active participation of the patient in the control and effective treatment of the disease.

Bouchardat originated promotion of patient education as a fundamental premise in the treatment of diabetes in 1875, and diverse authors in communities with quite distinct socioeconomic characteristics have repeatedly demonstrated its value. Nevertheless, in many countries only a minority of patients receive adequate diabetes education. As a consequence, many of those with diabetes are unaware of fundamental aspects of their disease and the steps they can take to control diabetes. The lack of adequate patient education is due in part to the fact that such education still does not have sufficient scientific weight and its value is often not recognized by opinion leaders and by those who are in charge of the public's health.

In order to be effective, education requires a series of planned events: individual assessment of knowledge and skills, educational interventions based on this assessment and adult learning principles and an evaluation of learning and behavior change. This process assumes health professionals competent in the care and treatment of persons and who possess advanced training in patient counseling and education. To assure the best outcome from an educational program, it is necessary for those who carry it out to have adequate training and experience. Additionally, education is an important part of the treatment and needs to be recognized as such in order to be adequately remunerated.

In order to facilitate the achievement of these objectives, the DOTA Education Task Group has developed the present document in which are enumerated, under the title of standards, conditions that ought to be strived for in an educational program for persons who have diabetes. In order to develop this document we have analyzed existing documents regarding the topic such as those of the International Diabetes Federation (IDF), the American Diabetes Association (ADA), and the American Association of Diabetes Educators (AADE). Consequently, many of the concepts in the present document are also found in their guidelines.

The region of the Americas is heterogeneous in aspects such as ethnicity, cultures, traditions, level of literacy, health systems and socioeconomic conditions. This heterogeneity also includes the level of diffusion, perceived importance, implementation and effectiveness of education programs for persons with diabetes. In consequence, the task of establishing standards is not simple; one runs the simultaneous risk of establishing standards inferior to that already in place for some and of establishing some that appear unreachable for others. Facing this circumstance, the DOTA Education Task Group attempted to create uniform criteria and establish common standards that would permit people with diabetes in the region to access reasonable diabetes treatment and control that actively and effectively incorporates education.

The Education Task Group desired that the standards enumerated were not only achieved but also exceeded in the programs of the region. Conscious, nevertheless, of the situation of many countries in which these programs are in an embryonic state, and to avoid the feared "inaction by deficiency"; the Task Group has defined in what follows the minimal standards to strive for in order that a program become an effective one.

We hope that the contents of the document will facilitate both the task of those who assume the responsibility for the education of people with diabetes and the task of those who are in charge of accreditation of educational programs as part of the treatment of this disease.

Based on all we have described, on the need of continuous evaluation of the results obtained and the permanent growth of knowledge in the field of diabetes, the Education Task Group believes that this document is a "work in progress" that will require periodic update in order to assure its relevance and effectiveness. That is and will be its commitment and challenge.

Implementation of these standards offers people with diabetes an opportunity to improve their daily lives and to avoid the long term complications of their disease. We are aware that this is not an easy task, but the effort is clearly justified by the benefits to be gained.

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I. Organization

An organization will be created that will be responsible for the design and implementation of an educational program for people with diabetes. The organization will be composed of qualified teaching staff, a Coordinator and an Advisory Committee.

Standard 1. The organization should have in writing the objectives of the education program, and it will be clearly indicated that education is a fundamental component of the treatment and management of persons with diabetes.

Standard 2. The organization should clearly identify in writing its objectives and provide the necessary resources in order to achieve the proposed objectives taking into consideration the target population and its sociocultural characteristics. Adequate resources should be provided in terms of:

- space/location
- personnel
- budget, and
- educational materials (audiovisual, manual for the participants, slides and transparencies with educational information and others).

Standard 3. The organization will be composed by the following:

- Teaching team and its members
- A Coordinator
- An Advisory Committee

II. Teaching Staff Characteristics:

Standard 4. The personnel of the organization should meet the following requirements:

a. Should be knowledgeable in a wide array of topics related to diabetes including: diagnosis, control and management of the disease, and teaching methods (pedagogical & motivational aspects, evaluation).
b. The core teaching team will be composed by a physician and/or nutritionist, nurse, diabetes educator or an adequately trained layperson (demonstrated objectively - accreditation of previous teaching experience and development of educational programs related to diabetes). In those cases in which the candidate is not a member of the health care team, he/she should provide proof of his/her previous experience as a diabetes educator.
c. It is desirable and fitting to make it possible for other members of the health care team to be incorporated as part of the teaching team such as nutritionists, podiatrists, physical education professors, psychologists, and social workers.
d. Meet with the coordinator at least three times a year in order to exchange opinions, evaluate the progress of the program, and submit an annual report to the Advisory Committee.

The Coordinator

Standard 5. The coordinator will be responsible for overseeing the overall progress of the program, an will be responsible for its planning, implementation, and evaluation. Additionally, the coordinator will:

a. Act as liaison between the teaching team, the Advisory Committee, and the organization
b. Provide and coordinate the orientation and continuing education of the teaching team/personnel of the organization
c. Meet with the teaching team periodically (at least 3 times a year)
d. Participate in the planning and annual review of the program.
e. Participate in the preparation of the budget
f. Be a member of the Advisory Committee

Advisory Committee

Standard 6. The Advisory Committee should have the following characteristics and operation modalities.

a. Interdisciplinary and intersectoral integration. The Committee will be formed by members of the health care team (such as physicians, nurses, nutritionists), diabetes patients and community representatives. In that case, the community representative should not be an employee of the organization.
b. Members of the Advisory Committee must have experience in diabetes management and stay up-to-date.
c. Meet at least twice per year
d. Annually participate, in conjunction with the Coordinator, in the planning of the program including the development of the following aspects: objectives, access of the diabetes population, methods of teaching, resources, monitoring, and evaluation of the program.
e. Review and approve annually diverse programs and recommendations.
f. Certify the knowledge, skills and abilities, and experience of the educators.
g. Approve new programs that are in agreement with the pre-established standards

III. Education Program

Standard 7. Patients access to the educational program: Upon development, the program will ensure its accessibility to the overall population to whom it is directed, including people with DM (type 1, 2 or insulin dependent), age and special needs of specific groups of people with diabetes.

Standard 8. It should guarantee the development of the program in a systematic and consistent fashion ensuring the continuing education of its participants (educators and learners)

Population

Standard 9. A target population should be defined with regards to:

a. Potential number of patients
b. Type of diabetes
c. Age
d. Language
e. Regional characteristics
f. Special educational needs (example, grade of schooling and of illiteracy).

Standard 10. A document that clearly indicates the curriculum of the educational program to be implemented will be prepared. This document should include the following aspects:

a. Objectives
b. Contents
c. Teaching methodology
d. Educational materials that will be used in the educational program
e. Evaluation and assessment of the program's objectives (instruments of evaluation, frequency and responsibility for its realization).

Program's Curriculum:

Standard 11: The program for education should include the following aspects:

a. General aspects on diabetes
b. Psychosocial factors and stress
c. Social support and family participation
d. Nutrition
e. Exercise
f. DM specific medication and administration, and related risk factors
g. Self glucose monitoring (clinical and metabolic), including how to self monitor glucose levels, interpretation of results and subsequent adjustments and decisions based on the results.
h. Relationship between diet, exercise, medication, and blood glucose levels (and other metabolic indicators)
i. Prevention, detection, and treatment of acute and chronic complications
j. Dental care, cutaneous (skin), and special emphasis on the care of feet
k. Benefits, risks, and management of different alternatives to achieve a better metabolic control based on clinical and metabolic variables.
l. Health care in the stage of pre-conception, pregnancy, and gestational diabetes.
m. Use of health care system and community resources
n. Advice and recommendations to patients for special occasions (i.e., holiday season, trips/travels, sickness)
o. The work environment
p. The negative consequences of unhealthy behaviors such as smoking or alcohol intake, and ways of eliminating these behaviors
q. Strategies enhancing the ability to establish behavioral changes, fulfill personal goals with regard to the medical treatment (i.e., reduction of risk factors) and strategies to achieve more efficient ways of dealing with daily life conflicts.

Standard 12. The educational program should use methods and materials that are appropriate regarding the characteristics of the target population.

IV. Methodology of Teaching

The educational program should include plans both at an individual and a group level:

Standard 13. The health care team will share the responsibility of the individual teaching of persons with diabetes. Education at an individual level will take place in every appointment the patient has with the health care team, in order to make each medical encounter an opportunity to educate persons with diabetes. The health care team and patient will work together and determine possible modifications in the development of the program in accordance with the individual needs of the patient, based on periodic outcome evaluations.

Standard 14. Group teaching: This is not a substitute for individual teaching, which the patient receives during regular interview/appointments with other health care team members, but a complement. Small groups (maximum of 15 people) and participatory techniques that facilitate the permanent feedback between student-educator will be favored. Group teaching should promote the strengthening of the patient's skills in terms of their decision-making, ability to adjust and change unhealthy habits, self-management and control of the disease, prevention of the development of complications and the improvement of the patient's quality of life.

This educational modality will tend to the formation of homogenous groups taking into account the following:

1. Age
2. Type of diabetes
3. Socio-cultural level
4. Potential learning barriers

V. Evaluation

Educational program evaluation outcomes will be annually reviewed by the Coordinator and the Advisory Committee. Future modifications of the program will be based on the results of this evaluation. The evaluation should assess if the program continues to meet the pre-established standards for diabetes self management educational programs. The results of this evaluation should be documented and use for the subsequent planning and updating of the program. If the evaluation of the program is not conducted in the predetermined time and fashion, or if the educational program does not meet the pre-established standards, the Committee will be authorized to intervene and even suspend the operation of the teaching team/program.

Standard 15. The Advisory Committee should be responsible for the annual program evaluation. This evaluation should take into account the following aspects:

a. Program objectives
b. Curriculum, methods, and materials
c. Composition of the teaching team
d. Participant follow-up mechanisms and access to the program
e. Program resources (space/location, personnel, and budget)
f. Marketing strategies to expand the access of the "target" population of interest to the educational program.
g. Effectiveness of the program based on objective patient/participant outcomes (clinical, biochemical, therapeutic, economic and overall patient satisfaction). The participants will be assessed at four points in time (i.e., at the beginning of the program (baseline), at the end, at 6 months and 12 months after the conclusion of the program).

The information obtained will be used for the following:

1. to evaluate the effectiveness of the program,
2. to detect the areas of the program that need reinforcement/change,
3. to carry out adaptations in the program in relation to the change of demand of the participant's needs and
4. to include topics of interest in continuing education courses.

Standard 16. Patient outcomes should be assessed according to program objectives, including the following:

a. Clinical changes: weight, symptoms, hypoglycemias, ketoacidosis, hospitalizations, changes in medication administration, and blood pressure.
b. Laboratory changes: blood glucose levels, glucosurias, ketonuria, HbA1c, lipidic profile
c. Attitudes: self glucose monitoring, treatment adherence (i.e., nutrition, exercise, etc.)
d. Use of health care services.
e. Psycho-social aspects such as: health beliefs, level of family/social support, socioeconomic level, program satisfaction, and learning barriers

Addendum

The sixteen standards described in this paper should be met by every diabetes education program desiring to achieve excellence, especially if it serves not only for the education of the people with diabetes but also for the training of diabetes educators. But such a program requires a high level of structural development and resources (human and economic) It may be rather easily implemented in a Diabetes Center as defined by WHO[1]. A Diabetes Center would provide a comprehensive range of health care services by means of a multidisciplinary approach. Its personnel should include "at least one

diabetologist/endocrinologist, two professional educators of different disciplines, physician specialists able to make early diagnosis, prevention and treatment of diabetes complications, and representatives from two additional health professions with complimentary expertise." Unfortunately, the possibility to develop Diabetes Centers in Latin America and the Caribbean is limited. They may serve as tertiary care referral facilities, connected with teams or units at the primary or secondary level of service delivery which have been also defined by WHO [1].

At the primary level of care, the minimal level of service could be given by medical or paramedical staff capable of doing basic diagnostics, provide essential drugs and organize a simple education program which should meet at least the standards 4a, 7, 8, 9, 10, 11, 12, 14 and 16. It would be optimal at this level of care to have a Diabetes Team, comprised by a physician with interest and experience in the control and treatment of people with diabetes and a professional educator. Such a team could create an organization with the physician acting as coordinator, which would additionally meet standards 1, 2, 4b, 5 and 13.

At the secondary level of care having a Diabetes Team would be desirable but a Diabetes Unit would be optimal. Its staff should be comprised by "a diabetologist/endocrinologist, or an internist with special diabetes training, a professional educator and at least three additional interdisciplinary diabetes care professionals who work in close proximity and provide coordinated health care." With that personnel, the education program could probably meet all the standards although its advisory committee might find standards 15d, e, f and g difficult to accomplish unless the Unit expands and eventually becomes a Center.

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3. International Diabetes Federation. International Consensus Position Statements for Diabetes Education. IDF Consultative Section on Diabetes Education. ISBN 185959 038 1. LONDON, UK, 2000.