

Therapeutic Patient Education: Competencies of Health Professionals and People with Diabetes

Educação Terapêutica na Diabetes: Competências dos Profissionais de Saúde e das Pessoas com Diabetes

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Abstract

This article was prepared by the former and current coordinators of the Study Group on Diabetes Education of the Portuguese Society of Diabetology and is based on the SPD Guidance Guide - Competences of Health Professionals and People with Diabetes, published in 2018.

This article addresses the concepts and importance of Therapeutic Education in Diabetes, the objectives of this process, the role of the health professional/educator and the description of the various phases of the Therapeutic Education Program. The skills of health professionals in each of the phases of the program are presented based on 3 domains: Knowledge (Knowledge), Skills (Know How) and Attitudes (Know How to Be). The skills of people with diabetes are also briefly addressed in this article.

These recommendations are intended to help multidisciplinary healthcare teams to develop an interdisciplinary work and to improve the care provided, according to the interests and needs of people with diabetes and their families, in order to promote quality of life.

Keywords: therapeutic patient education, diabetes, competences, healthcare professionals, people with diabetes

Resumo

Este artigo foi elaborado pelos anteriores e atuais coordenadores do Grupo de Estudos de Educação em Diabetes da Sociedade Portuguesa de Diabetologia e baseia-se no Guia de Orientação da SPD - Competências dos Profissionais de Saúde e das Pessoas com Diabetes, editado em 2018. Neste artigo são abordados os conceitos e a importância da Educação Terapêutica na Diabetes, os objetivos deste processo, o papel do profissional de saúde/educador e a descrição das várias fases do Programa de Educação Terapêutica. As competências dos profissionais de saúde em cada uma das fases do programa são apresentadas com base nos 3 domínios: Conhecimentos (Saber), Habilidades (Saber Fazer) e Atitudes (Saber Ser). As competências das pessoas com diabetes também são resumidamente abordadas neste artigo.

Estas recomendações pretendem ajudar as equipas de saúde multidisciplinares a desenvolver um trabalho interdisciplinar e a melhorar os cuidados prestados, de acordo com os interesses e as necessidades das pessoas com diabetes e familiares, de forma a promover a qualidade de vida.

Palavras-chave: educação terapêutica, diabetes, competências, profissionais de saúde, pessoas com diabetes

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> INTRODUCTION

Taking into consideration the recognized importance of healthcare professionals' skills in the field of Therapeutic Patient Education, this article aims to raise awareness within the health professional's community to the importance of a personalized Therapeutic Education program for people with diabetes, in order to help them to

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improve and increase skills and taking into account their experiences and disease management.

This document is based on the Recommendations/Guidelines of the Portuguese Society of Diabetology (SPD), carried out by the Nursing, Nutrition and Education Study Groups on Therapeutic Education in Diabetes - Competences of Healthcare Professionals and People with Diabetes, in 2018. ⁽¹⁾

We will start by presenting the concepts and importance of Therapeutic Patient Education, the objectives and the role of the healthcare professional/educator. Following that, we approach the competencies of health professionals in the 3 domains are presented: Knowledge (Knowing), Skills (Knowing How to Do) and Attitudes (Knowing how To Be/Act). The description of the various phases of the Therapeutic Patient Education Program is based on the skills of health professionals in each of these phases.

Finally, it was considered important to refer to the skills of people with diabetes, as a goal of this path of their follow-up throughout their life cycle.

We hope that these recommendations can contribute to helping multidisciplinary healthcare teams to have knowledge and better understand the therapeutic education process, in order to improve the care provided, according to the interests and needs of people with diabetes and to promote further group education activities with peer support, which have already shown evidence of improving quality of life in people with chronic disease.

> THERAPEUTIC PATIENT EDUCATION

"Therapeutic Education activities are essential in the management of chronic diseases. They should be managed by healthcare professionals trained in the field of education and are aimed at people with chronic conditions (or groups of people) and families, to manage treatment, prevent complications and maintain or improve quality of life. Therapeutic Education produces additional therapeutic effects to those produced by other interventions (pharmacological, physical activity,...)" ⁽²⁾

(World Health Organization, 1998)

Therapeutic Education is an ongoing interactive and collaborative process that involves the person with diabetes, the family and the healthcare professional. The person's life context, their degree of acceptance of the disease, their abilities and skills, influence the motivation to learn and the way of learning. ^(3,4,5)

The DAWN (Diabetes Attitudes Wishes and Needs) Needs Study Model (study of attitudes, wishes and needs of people with diabetes, family and healthcare professionals), in Figure 1, it's shown the framework and life contexts of people with diabetes, which is essential to take into account in this Therapeutic Education process. ^(6,7,8)

The importance of Therapeutic Education comes from the need to train people with chronic illness to develop self-management skills and adapt treatment to their illness, helping them to manage treatment and prevent or delay complications, while maintaining or improving their quality of life. ^(2,3,4,9)

Therapeutic Education allows people with diabetes to collaborate, with recognized competence and actively, in their treatment, as an integral element of the health team. It is a step-by-step process, which comprises a set of organized activities to raise awareness, information, training, psychological and social support, and which is intended to help the person with diabetes and the family to understand the disease and treatments, to collaborate in the care and to take responsibility for their state of health, building up their autonomy. ^(3,10)

Purpose of Therapeutic Education

The purpose of Therapeutic Education is to promote adaptation to the disease and adherence to treatment, as well as help people acquire therapeutic skills and competences that allow them to mold diabetes to their lives, in the best way for them, taking into account the circumstances, their goals and priorities. This process is effective and contributes to promoting disease acceptance, improving clinical outcomes and metabolic compensation, preventing hospitalizations, and reducing healthcare expenses. ^(3,10,11)

Who carries out Therapeutic Education?

When a chronic disease such as diabetes is diagnosed, the health team has a fundamental role in educating the person and family (or caregiver) about the disease and the actions that have to be developed to manage the disease, helping them to acquire knowledge, skills and competences and to overcome barriers, becoming active participants in their health care. ^(3,10,12)

The role of the educator is to work with the other elements of the multidisciplinary team, helping to improve the health and quality of life of the person with diabetes and their family, which are members of this team. Although each professional has his specific role and performance, the skills related to therapeutic education are

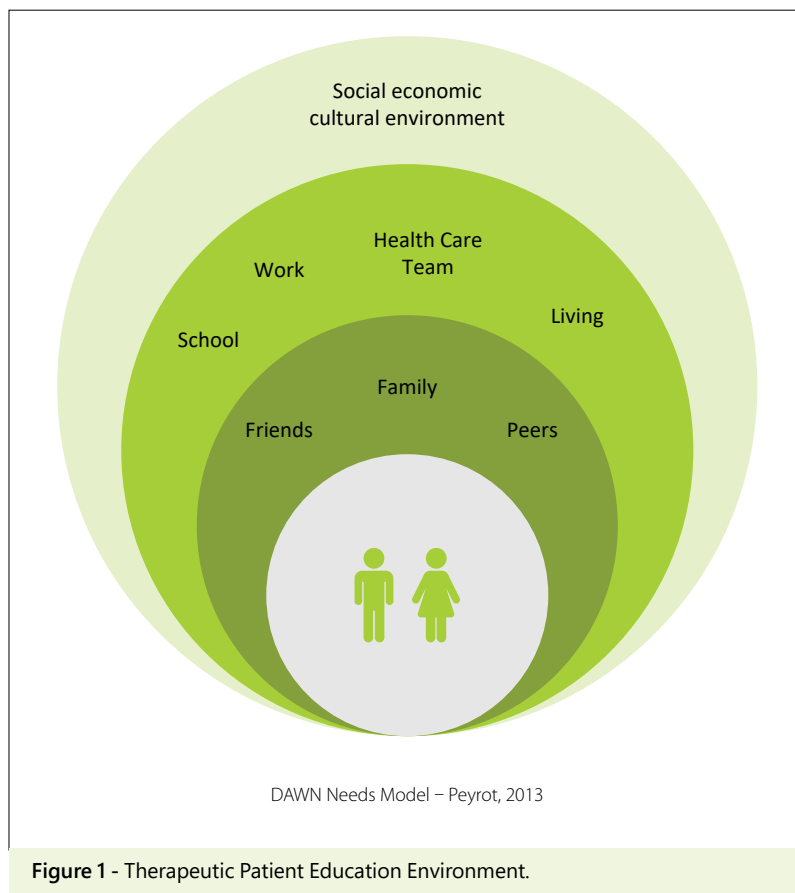


Figure 1 - Therapeutic Patient Education Environment.

Knowledge (To Know)

Knowledge must be comprehensive on the following topics:

- Diabetes (prevention, diagnosis, treatment, complications, co-morbidities);
- Methods of assessing the person's health/illness situations and the ability to provide appropriate guidance and structured education;
- Therapeutic Education;
- Motivational Interview;
- Methodologies that promote Behavior Change;
- Design and implementation of various educational programs according to the person's needs and their ability to carry them out;
- Recognition of the limits of their profession, responsibilities, requirements, and availability for referrals;
- Understanding the structural, financial and legal aspects of the Health System;
- Theoretical principles and demonstration of critical thinking regarding:
 - Quality assurance;
 - Evidence-based Medicine/Health;
 - Case management.

common to the various elements of the multidisciplinary team involved in the treatment of people with diabetes. ^(13,14)

The results of the DAWN Study 2 highlight the importance not only of multidisciplinary approach, but also of interdisciplinarity in the team. The relationship with the health team should provide information, advice and education, in a complementary way, to support the empowerment of the person with diabetes. ^(12,15,16)

It is necessary to identify the educational needs of the team and promote training in the care of people with diabetes, namely in relation to methodologies and intervention strategies. ⁽¹³⁾

The creation of consensual protocols with the definition of roles and the area of intervention of the various elements promotes teamwork. ⁽¹³⁾

> SKILLS OF HEALTHCARE PROFESSIONALS ^(3,10,17,18,19,20,21,22,23,24,25,26,27)

The competencies of healthcare professionals are based on three dimensions: Knowledge, Skills and Attitudes.

Skills (Qualifications, Technique, Capabilities, Know-how)

Professionals must have cognitive and practical qualifications and be able to:

- Assess and analyze the person's health status, taking into account biopsychosocial aspects, and plan individualized guidance and education, ensuring the quality and efficiency of care to the person;
- Consider the biopsychosocial aspects of diabetes, their interconnections and apply that knowledge in clinical practice;
- Providing and promoting knowledge and personalized care appropriate to the person or group, taking into account the psychological, spiritual, ethical, social and biological aspects of health-disease and supporting self-management in people of various cultures;
- Have evidence-based expertise in areas related to the treatment and management of diabetes (nutrition, physical activity, pharmacotherapy, sick days management,...) and in the use of new technologies (continuous subcutaneous insulin infusion systems (SPSCI),

continuous glucose monitoring systems (SMCG), telehealth, ...);

- Understand the clinical decision-making process in the orientation and development of practice to meet the needs of the person, family/caregiver and be able to critically assess its impact;
- Plan the health care process, proposing alternative ways of solving and managing problems and working in a transdisciplinary way for continuity of care;
- Contribute to the work of the multidisciplinary team with innovative practices;
- Understand the evidence from the investigation and be able to apply it in their work with the person, family/caregiver and community;
- Participate in research studies;
- Critically participate in the self-assessment and reflection processes.

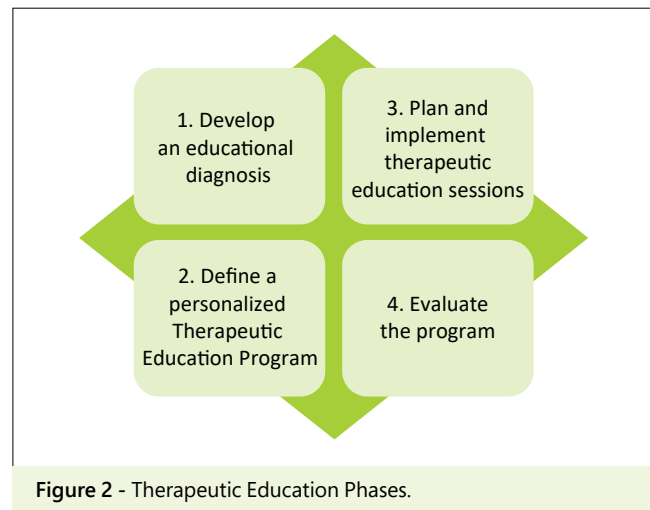
Attitudes (Personal and Social Skills, Knowing How to Be/Act).

Professionals must be able to:

- Demonstrate active listening, empathy and consistency;
- Understand the impact of the chronicity of the disease with all its specificities;
- Consider the individual, family, social and community context in their work with the person;
- Understand the empowerment approach to promote the person's having power and control over their own life;
- Working as a team, promoting interdisciplinarity;
- Present complex issues clearly and systematically;
- Reflect on their own learning goals and performance, integrating them into daily practice;
- Conduct individual consultations, plan and guide group education sessions;
- Implement in their practice, based on up-to-date scientific evidence, quality, safety and case management procedures;
- Define the process of elaborating the Therapeutic Education program, carrying out the educational diagnosis, planning the contents of the sessions and adjusting the pedagogical techniques to the acquisition of different skills.

> THERAPEUTIC EDUCATION PROGRAM

The organization of a Therapeutic Education program has 4 phases (Figure 2). Healthcare professionals have different competencies in each of them. ^(3,10)



1. Develop an Educational Diagnosis ^(3,10,28,29,30,31,32,33)

The educational diagnosis is essential for the knowledge of the person with diabetes, for the identification of their needs and expectations. It is important to define, together with the person, the skills already acquired and to be acquired, to mobilize or to maintain, taking into account their priorities. The educational diagnosis must be updated regularly and systematically. So, it is important:

- Getting to know the person, identifying their needs, expectations, receptivity, knowledge, skills, representations, living and working conditions that can influence their diabetes management;
- Recognize the role of socio-environmental factors (age, socio-economic level, social status and lifestyle), socio-cultural characteristics, stressful life events, social integration and the person's perception and validation of such factors;
- Promote the person's involvement and motivation, taking into account their therapeutic goals, their willingness and decision-making, their learning needs and priorities, and the personalized management of the disease;
- Encouraging and sustaining the practice of self-assessment, so that the person feels gratified with what they are able to accomplish and can identify new learning needs.

2. Define a Personalized Therapeutic Education Program Taking Into Account Learning Priorities

In defining a personalized education program, the skills to be acquired are formulated/negotiated, together with the person, taking into account their goals, life pro-

ject and therapeutic strategy. This structured and individualized program must be communicated to the whole healthcare team. ^(3,10,19,28,29)

In group education, the health professional is a moderator/facilitator, using active/interactive methods that allow each person to feel free to participate actively. Learning should be as practical as possible, experimenting and using the different senses. ^(34,35,36,37)

Learning from peers who successfully overcome certain obstacles can serve as a model and be motivating. Considerable evidence demonstrates that these realistic learning approaches are the most effective. ^(34,35,36,37)

The elaboration of the program includes the definition of objectives, contents and learning methodologies.

2.1. Objectives

The objectives must be adjusted to the needs of the person and the group, the duration of the consultation/session and the contents to be developed. They describe observable and measurable behaviours and skills and indicate the skills that people with diabetes should acquire. ^(3,10,17)

The objectives have the following function: ^(3,10,19,28)

- Help the healthcare professional and the person with diabetes to situate themselves in relation to the goal to be achieved;
- Guide to the choice of teaching methods and techniques;
- Unambiguously show whether the goal is achievable.

The pedagogical objectives cover 3 domains (Figure 3):

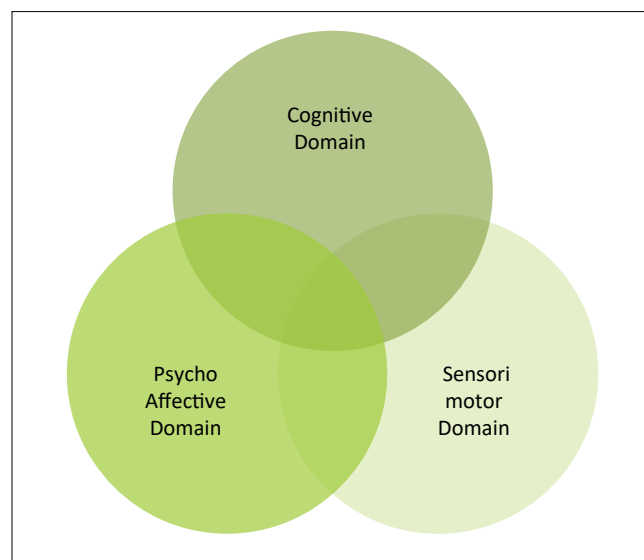


Figure 3 - Pedagogical objectives domains.

- Cognitive domain – intellectual skills to acquire information;
- Sensorimotor domain – encompasses dexterity in motor activities;
- Psycho-affective domain – encompasses behaviours, interests and attitudes.

Main Goal and Specific Objectives

– Main goal – consists of a statement of pedagogical intentions that describe the expected results at the end of the educational program. They give an indication of what the person should be able to do after the training course, they generally concern broad and complex competences.

– Specific objectives – also called operational objectives, they are the result of the division of the general objective (wider) in more elementary learning. They should clearly state in terms of observable and measurable behaviour what the person should be able to do at the end of each education session.

Formulation of Specific Objectives ^(3,10,17)

When defining an objective, it is important to follow some procedures:

- **Be able to assess the expected result** – Example: At the end of the session, the person should be able to...;
- **Select the verb** – verbs that describe univocal and observable activities (action verbs) should be used;
- **Consider the person as the subject** – the verb must have the person as the subject, to describe the behaviour that is expected.

Example of specific goals regarding the treatment of hypoglycaemia ^(3,10,17)

– Knowledge – **To know** – The person must know what the term hypoglycaemia means, recognize the signs and symptoms and what can be used to correct it.

– Skills – **Know how to do** – The person chooses the right foods to treat hypoglycaemia and takes the necessary amount, when they recognize their own symptoms. Family members know how and when to use glucagon.

– Domain of events – **Know how to be** – Mastery is acquired when the person adequately corrects their hypoglycaemia in different and unforeseen situations. Family members are familiar with glucagon, its effects and the situations in which it should be used.

2.2. Contents

The contents to be discussed with people with diabetes cover the fundamentals of diabetes and treatment regimens, as well as the process of evaluating the person’s health status and health care.

2.3 Learning Methodologies

Learning methodologies define a set of actions by the health professional aimed at developing, in people, the ability to learn new skills, obtain new knowledge and change attitudes and behaviours. It consists of the coordinated application of a set of techniques and procedures. ^(3,10,19,28,38)

The proposed teaching-learning methodologies are interactive, in order to promote the involvement and development of people’s skills and must be adjusted to the target audience and learning objectives. ^(3,10,19,28,39)

The pedagogical methods are related with Instruction and Demonstration, Information, Learning by doing, Learning by imitation and learning through problem solving (Figure 4).

Instruction and Demonstration

Instruction can be used to demonstrate the correct way to perform a certain skill, allowing the person receiving the instruction to try for themselves and have the help of the health professional to do well. Demonstration is a performance of psychomotor procedures or skills that, combined with practice, constitute the most appropriate method for acquiring skills. For example, healthcare professionals demonstrate the functioning of devices (glucometers, insulin pens), so that the person can then perform what has been demonstrated. ^(3,10,28)

Information

Information differs from instruction in that the transmission of knowledge does not necessarily lead to learning and behaviour change, but it can also occur. It is advisable to ask open-ended questions to see if the person has internalised the information transmitted. ^(3,10,28)



Figure 4 - Pedagogical Methods.

Learning by Doing

It describes the learning that takes place when we perform, experience or practice. It is a prevalent method of learning in diabetes. It can be very useful in acquiring knowledge and skills, for example, in the continuity of the insulin administration process. ^(3,10,28)

Learning by Imitation

We learn from a model, based on the behaviour of other people. Other people are seen as positive role models that can be copied, for example more experienced people with diabetes (peers), in group education sessions, courses, summer camps,... ^(3,10,28)

Learning Through Educational Situations

Problem-situations refer to concrete real-life situations that require a resolution or decision, allowing the discovery of new perspectives in the appreciation of problems and in decision-making. The following questions can be asked: What is the problem? How can it be prevented? How can it be resolved?

People can be trained to act in situations of hypoglycaemia, hyperglycaemia, physical activity, logbook analysis and insulin adjustment training, which will provide people with diabetes with greater confidence and ease when these situations arise in their lives. ^(3,10,28)

3. Plan and Implement Individual and Group Therapeutic Education Sessions

In order to plan and carry out individual and/or group therapeutic education sessions, the contents and methodologies must be defined taking into account local possibilities (geographic accessibility, human, physical and financial resources) and people's needs and preferences. Individual and group sessions can be carried out alternately, as they are techniques with different and complementary advantages.

Advantages of One-on-One Education Sessions ^(3,10,28)

- Personalization and adaptation to the rhythm of the person.
- Privileged relationship between the healthcare professional and the person.
- Better contact.
- Better knowledge of the person, their experiences and life context.

- Possibility to match needs.

Advantages of Group Education Sessions ^(3,10,28,34,35,36,37)

- Promotion of interaction between participants;
 - Stimulation of learning;
 - Socializing among peers;
 - Time saving;
 - Sharing of experiences and skills;
 - Problem solving.

Group education with peer guidance and support has the following inherent advantages: ^(3,10,28,34,35,36,37)

- **Credibility** – people consider the “speech” of other participants more credible, as they share the same problem;
- **The value of experience** – people tend to believe that the other participant's experience is applicable and can be used to their own experience;
- **Communion of language** – people know how to express themselves in terms that are understandable, directly, among all the participants.

One of the fundamental premises for the success of the interventions is the active inclusion of people with diabetes in partnership with health professionals, in the definition of strategies, according to their interests and needs. The Therapeutic Education sessions are person-centred, with dynamic approaches facilitating communication and problem solving, encouraging interaction among participants. ^(3,6,7,8,10,24,33,38,39,40)

Carrying out the Therapeutic Education Evaluation

Individual evaluation can be planned at any time during the development of the programme/consultation, if the health professional considers it necessary or if the person requests it.

Objectives of the Therapeutic Education Evaluation

^(3,4,10,19,28,31)

- Value the changes in the person (the acquisition of skills).
- To evaluate the experiences of the disease in daily life.
- Assess knowledge, skills and competences in the various areas of diabetes treatment and management.
- Assess self-determination and capacity to act.
- Assess self-determination and capacity to act.
- Update the educational diagnosis.
- To share information with the health team.
- Propose to the person the possibility of continuing the therapeutic education programme taking into account his/her wishes and needs.

At the end of the group education sessions the participants can be asked to fill in satisfaction evaluation questionnaires regarding the various phases of the session, the aspects they liked best and least, and suggestions, which will allow the following sessions to be education according to the interests and needs of the participants.

(34,36,27)

> **COMPETENCIES OF THE PERSON WITH DIABETES**

(3,6,7,10,11,12,19,25,27,30,31,38,39,41)

People with diabetes who take part in individual or group Therapeutic Education programmes acquire adaptive, self-care and self-assessment skills. These skills are promoted by the health team throughout the educational process.

Adaptation Competencies

- Knowing oneself (needs, values, knowledge, projects and wishes) and having self-confidence.
- Develop skills in communication and interpersonal relationships.
- Develop health literacy, for a critical and creative analysis and reflection, enabling decision making and problem solving.
- Recognize their emotions and know how to manage emotions and stress.
- Take into account the objectives to be achieved.
- Observe, evaluate and reinforce themselves.
- Identify health system resources, know how to search for reliable information and participate in associations of people with diabetes.
- Know and assert their rights.

Self-Care Skills

- Knowing the disease, identifying symptoms, understanding and managing treatment, acting in situations related to intercurrent diseases;
- Put into practice a healthy lifestyle (diet, physical activity, ...);
- Perform the technical procedures, self-care and self-treatment, in order to prevent or delay the onset of complications;
- Integrate new technologies in disease management;
- Involve the support network in disease management.

Self-Assessment Skills

- Express their point of view about the relationship with

the health team and the education and development of the individual Therapeutic Education programme.

- Internalize the relevance of information and skills acquisition according to the learning priorities.
- To adapt diabetes and the daily management of the treatment in accordance with their life project.
- To be aware of the benefits of Therapeutic Education, such as the changes achieved, the satisfaction of their needs, autonomy, self-efficacy and risk perception.
- To perceive their feelings and experiences in relation to well-being (physical and psychological health), beliefs and spirituality, quality of life, support network, social environment and environment.

> **CONCLUSION**

Therapeutic education is side by side of people with diabetes and their families/caregivers throughout their lives, being developed gradually, at the pace of each person's interests, wishes, needs, abilities and difficulties, promoting the acquisition and maintenance of skills that allow them to optimise the management of their lives and disease. (3,6,7,10)

The benefits of Therapeutic Education are consensually recognised and refer to the increased satisfaction of people and health professionals, the improvement of health, well-being and quality of life and the reduction of costs at a personal, family, labour, social and economic level. (3,8,10,15,32)

It is essential to work in a multidisciplinary team and develop interdisciplinarity among everyone, which will be very beneficial for the whole health team, including people with diabetes, family members and carers. (3,5,13,14,15,16,18)

Studies highlight the importance and added value of peers in group education sessions in terms of well-being, exchange of experiences, acceptance of diabetes and autonomy and development of self-management skills, so it is recommended to carry out these activities. (3,34,35,36,37)

These recommendations can be used as a basis for therapeutic education practices adapted to the reality of each place, the human and material resources available, and the target population. <

Conflicts of interests/Conflitos de interesses:

The authors declare that they have no conflicts of interests./Os autores declaram a inexistência de conflitos de interesses.

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