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Nurse training in primary care: educational actions with people living with *Diabetes mellitus*

Camila Aparecida Pinheiro Landim Almeida[1*], Jardel Nascimento da Cruz[1], Débora Rodrigues Fernandes[1], Lauryanna de Queiroz Silva[1], Carlos Henrique Ribeiro de Lima[2] and Eliana Campêlo Lago[1]

*[1]Centro Universitário Uninovafapi, Rua Vitorino Orthiges Fernandes, 6123, 64073-505, Teresina, Piauí, Brazil. [2]Prefeitura Municipal de São João da Serra, São João da Serra, Piauí, Brazil. *Author for correspondence. E-mail: camila@uninovafapi.edu.br*

ABSTRACT. Educational actionswith people living with chronic conditions, especially *Diabetes mellitus*, are a challenge and a necessary strategy in Primary Care, in view of the glycemic balance, the prevention of complications and the improvement of the quality of life. This study aimed to analyze nurse training in educational actions developed in Primary Care with people living with *Diabetes mellitus*. A qualitative research was conducted with 28 nurses of Primary Care, in Teresina, state of Piauí, Brazil. Data were collected from April to June 2015 through interviews and analyzed by the collective subject discourse technique. The construction of the results was based on four sequential questions made in the interviews, from which emerged 15 central ideas: lectures, group orientation, nursing consultation and home care; theoretical knowledge, practical knowledge, technical knowledge and expertise knowledge; few materials and infrastructure in the basic unit, lack of professional teamwork, reduced workload and little awareness of teachers; and promotion of care and and self-care, family support and prevention of complications. In the analysis of the discourses, it was possible to conclude about the need for Permanent Health Education in Primary Care.

Keywords: primary health care, health education, *Diabetes mellitus*, nursing.

Formação do enfermeiro na atenção básica: ações educativas com pessoas que vivem com *Diabetes mellitus*

RESUMO. As ações educativas com pessoas que vivem com condições crônicas, em especial com *Diabetes mellitus*, apresentam-se como um desafio e uma estratégia necessária na Atenção Básica, tendo em vista o equilíbrio glicêmico, a prevenção de complicações e a melhoria da qualidade de vida. Neste estudo objetivou-se analisar a formação do enfermeiro sobre ações educativas desenvolvidas na Atenção Básica com pessoas que vivem com *Diabetes mellitus*. Realizou-se pesquisa de natureza qualitativa, com 28 enfermeiros da Atenção Básica, em Teresina, Piauí, Brasil. Os dados foram coletados de abril a junho de 2015, por meio de entrevistas e analisados pelo discurso do sujeito coletivo. A construção dos resultados foi realizada com base nas quatro questões sequenciais realizadas nas entrevistas, das quais emergiram 15 ideias centrais: palestras, orientação em grupo, consulta de enfermagem e atendimento domiciliar; conhecimento teórico, conhecimento prático, conhecimento técnico e conhecimento especializado; poucos materiais e infraestrutura na unidade básica, ausência da atuação de profissionais em equipe, carga horária reduzida e pouca sensibilização dos professores; e, promoção de cuidado e autocuidado, apoio familiar e prevenção de complicações. Na análise dos discursos dos enfermeiros, foi possível concluir sobre a necessidade de Educação Permanente em Saúde na Atenção Básica.

Palavras-chave: atenção primária em saúde, educação em saúde, *Diabetes mellitus*, enfermagem.

Introduction

In view of the successive difficulties that emerge to improve the quality of education in higher education and academic health practices, understanding the professional trainingon educational actions with people living with *Diabetes mellitus* represents a constant challenge for the practice of the nurse in Primary Care. It is necessary to associate the demands of the person with a chronic condition, the formation of human resources and the health system, which can reflect in institutional, professional and personal changes.

Diabetes mellitus (DM) is a chronic condition considered as a serious global public health problem by the alarming prevalence in recent years (International Diabetes Federation [IDF], 2015a). In the United States, in 2012, there were 29.1 million people with

DM, 21 million with diagnosis and 8.1 million with no diagnosis, which corresponds to 27.8% of the total. As for the direct and indirect costs of DM in the United States for the year 2012, calculated using the prevalence-based cost-of-illness method, an estimated 245 billion total costs were estimated, with 176 and 69 billion direct and indirect costs, respectively (Centers for Disease Control and Prevention [CDC], 2014).

According to the Pan American Health Organization [PAHO] (Organização Panamericana da Saúde [OPAS], 2011), primary health care or basic care in Brazil is recognized as a key component of health systems, based on evidence of its impact on health and population development in countries that have adopted it as the basis for their health systems: better health indicators, greater efficiency in the flow of users in the system, more effective treatment of chronic conditions, greater efficiency of care, greater use of preventive practices, greater user satisfaction and reducing inequities in access to services and general health.

Considering the chronicity of the condition of being a person with DM, chronic complications can be prevented through educational actions developed by the nurse, in search of a better quality of life, both for the construction of disease knowledge and daily care, as for the development of skills. Thus, the Brazilian Diabetes Society (Sociedade Brasileira de Diabetes [SBD], 2015) recommends that all health professionals, including nurses, involved in the care and management of DM should have resources available to provide quality care, as well as, to guide people living with *Diabetes mellitus*, caregivers and/or family members.

Given the diverse peculiarities involving the issue, studies have shown that *Diabetes mellitus* has been extensively investigated in its pathophysiological aspects, highlighting the search for strong evidence that can be used in the clinical practice of the Primary Care nurse, with attributions focused on health promotion, prevention of complications, treatment and rehabilitation of the health of individuals and community, carried out in an interdisciplinary and multidisciplinary manner (Matumoto, Fortuna, Kawata, Mishima, & Pereira, 2011; Florianópolis, 2015).

However, a gap was identified in the literature about the scientific knowledge produced on the training of health professionals, especially nurses, on educational actions developed in Primary Care with people living with *Diabetes mellitus*. In particular, regarding the city of Teresina, State of Piauí, the training of nurses on educational actions developed in Primary Care with people living with *Diabetes mellitus* has not been investigated.

Thus, the research question that guided the present study was: What is the training of nurses about educational actions developed in Primary Care with people living with *Diabetes mellitus*? In this way, this study aimed to analyze nurses' training on educational actions developed in Primary Care with people living with *Diabetes mellitus*.

Material and methods

This is a descriptive qualitative study, selected as a result of the nature of the focused object, namely: the symbolic processes of nurse training on educational actions developed in Primary Care with people living with *Diabetes mellitus*. It is also important to point out the approximations of this study to the qualitative evaluation of teaching and academic practices in health.

The scenario of this investigation was the Basic Health Units (BHU) of the Family Health Strategy (FHS) of the East/Southeast Regional Health Unitof the city of Teresina, State of Piauí, Brazil. It should be highlighted that this research is part of the Macroproject entitled 'Knowledge of health education in *Diabetes mellitus* by the nurse in the Family Health Strategy', in the line of work 'Training human resources in the family health care', of the Program of Professional Master's Degree in Family Health at UNINOVAFAPI University Center, Teresina, Piauí, Brazil.

The participants of this research were selected not by statistical representativeness, but by the subjective accumulation, that is, by the experiences accumulated during the nursing exercise in Primary Care. Twenty-eight nurses participated through the invitation made during the visit to the Basic Units. The following inclusion criteria were established: to be working as a nurse in the FHS in Teresina/PI for at least one year and to be working in teams from the East/Southeast Regional Health Unit during the data collection period. Trainees, nurses who performed voluntary activities, those who were on sick leave or vacations during the period of data collection were excluded.

In order to preserve anonymity, we chose to replace the names of the participants with the capital letter P, followed by Arabic numerals: P1, P2, P3 ... P28. The number of participants was delimited by the theoretical saturation process, according to which, as the data were obtained and/or analyzed, the relevance structures were deepened, progressively responding to the objectives outlined, pointing out a certain recurrence and consistency before the questions under study (Fontanella et al., 2011).

To gather the empirical material, interviews were recorded and transcribed in full, guided by a semi-structured script composed of four questions, from April to June 2015. In order to characterize the interviewees regarding personal and social aspects, we applied a form containing data related to gender, age, origin, time of experience in Primary Care, time and area of academic formation at undergraduate and postgraduate level (specialization, master's and doctorate). Thus, among the 28 nurses participating in this study, 25 (89.3%) were female, with an average age of 35 years, and 22 (78.5%) were from the city of Teresina and other cities in the interior of the State of Piauí. The average time at the undergraduate level was eight years and service in Primary Care was 14 years. Participants stated that they had completed postgraduate (specialization), but only three (23.1%) in the area of chronic conditions, the others in the areas of obstetrics, family health, urgency and emergency, oncology and higher education. As for training at masters and doctorate level, five (18.5%) were masters and only two (7.1%) were doctors (Silva, Fernandes, Cruz, Lago, Lima, & Almeida, 2016).

For the analysis of the empirical material, we used the Collective Subject Discourse (CSD) as a methodological strategy, which consists of a qualitative way of representing the collective thought, adding to a synthesis-discourse the discursive contents of a similar sense, emitted by people different. Thus, each participant interviewed, chosen based on criteria of social representativeness, contributes with a fragment of thought for collective thinking (Lefevre, Lefevre, & Marques, 2009).

The CSD technique consists of selecting, from each individual response to a question, the key expressions (KE), which are more significant stretches of these responses. To KE, central ideas (CI) correspond, which are the synthesis of the discursive content manifested in KE. With the material of the KE of the CI, are constructed synthesis-discourses, in the first person singular, which are the CSD, where the thought of a group or collective appears as an individual discourse (Lefevre et al., 2009).

The inclusion of the participants in this study was performed obeying the ethical and legal recommendations that govern human research (Brasil, 2013). All participants were informed about the objectives and methods of the study and signed the Informed Consent. The study was approved by the Research Ethics Committee of the UNINOVAFAPI University Center, in compliance with Resolution 466/12 of the National Health Council, under the Certificate of Ethics Presentation and Appraisal (CAAE) #42386915.8.0000.5210 and Opinion1.012.272/2015, on March 25th, 2015.

Results

Considering the objective and the methods proposed in this study, the CSD results were presented in four questions. From the analysis performed, each question was followed with the respective central ideas, sequenced by the selected stretches of the verbal material from the individual speeches that best described its content. In a complementary way, the central ideas originated in each question were represented in Tables (Table 1, 2, 3 and 4), containing the participants and the frequency found.

In the first question, 'Talk about your activities related to health education with people living with *Diabetes mellitus* in the Family Health Strategy', the nurses revealed important activities developed, giving rise to the following central ideas: lecture, group orientation, nursing consultation and home care (Table 1).

Table 1. Central ideas, participants and frequency of the first question. Teresina, State of Piauí, Brazil, 2015.

Central ideas	Participants	Frequency
Lecture	P2, P3, P7, P8, P9, P15, P21, P22	8
Group orientation	P17, P18, P19, P20, P23	5
Nursing consultation	P1, P4, P5, P12	4
Home care	P14, P21	2

Source: Direct Research.

According to the representation of the composition of the central ideas from speeches answered in the first question, Table 1 showed that eight participants mentioned the development of health education activities for the person living with *Diabetes mellitus* through lecture, five participants emphasized the group orientation, four participants through the nursing consultation and two referred the home care. Thus, the discourses of the collective subject discourse based on the four central ideas presented in this question were:

> 1st central idea: Lectures - We develop educational activities permanently through lectures. Lectures are held with professionals, such as nutritionists and endocrinologists [...] (P8).
>
> 2nd central idea: Group orientation – As a nurse, I work with group guidance in group meetings[...] generally we attend groups, offering educational guidance[...] (P20).
>
> 3rd central idea: Nursing consultation – We have one day a week for the care of diabetic people [...] where individualized follow-up is carried out at each visit ... [...] is an opportunity to do health education (P5).

> 4th central idea: Home care – We perform home care activities, where we use the opportunity to provide information about diabetic health care to family members [...] (P21).

Regarding the second question, 'In what did your formation contribute to you to work in health education with people living with *Diabetes mellitus* in the Family Health Strategy?', Four main ideas originated: technical knowledge, expertise knowledge, theoretical knowledge and practical knowledge (Table 2).

Table 2. Central ideas, participants and frequency of the second question. Teresina, State of Piauí, Brazil, 2015.

Central ideas	Participants	Frequency
Technical knowledge	P1, P3, P10, P13, P15	5
Expertise knowledge	P2, P6, P7, P8, P9, P11, P16, P17	8
Theoretical knowledge	P4, P5, P18, P19, P21 P22	6
Practical knowledge	P12, P14, P21, P23	4

Source: Direct Research.

In this second question, the participants mentioned that the contribution of the training is focused on knowledge (technical, specialized, theoretical and practical) to support their work in health education with people living with *Diabetes mellitus*. Thus, according to Table 2, the emphasis was on expertise knowledge (eight participants), followed by the theoretical knowledge with six participants, in addition to the technical and practical knowledge, with five and four participants, respectively, also highlighting the importance of professional practice. The results of the analysis developed from the collective subject discourse based on the central ideas presented in this question were:

> 1st central idea: Technical knowledge - My training gave me a technical background to provide better care to the diabetic patient [...] I feel that my work contributed to this attention for diabetics [...] (P1).

> 2nd central idea:Expertiseknowledge –I have improved as a professional after my specialization in family health, since I had a module in the care of patients with chronic conditions [...] that is why I consider it important to have a postgraduate degree, as you obtain specialized knowledge of this area (P7).

> 3rd central idea: Theoretical knowledge – My nursing formation contributed a lot to understanding the importance of studying, knowing the theory a lot before doing educational actions in the care of people with diabetes[...] (P18).

> 4th central idea: Practical knowledge – Only graduation was not enough, I improved with reality [...] mainly the experience of professional practice(P23).

In addition to the aspects that contributed positively during the training, the nurses also expressed the aspects of training that interfered negatively, in the third question of the interview, 'What are the aspects that interfered with your training for the work in health education with people living with *Diabetes mellitus* in the Family Health Strategy?', giving rise to four central ideas: few materials and infrastructure in the basic unit, lack of professional teamwork, reduced workload and little awareness of teachers (Table 3).

Table 3. Central ideas, participants and frequency of the third question. Teresina, State of Piauí, Brazil, 2015.

Central ideas	Participants	Frequency
Few materials and infrastructure in the basic unit	P2, P6, P11, P17	4
Lack of professional teamwork	P9, P21	2
Reduced workload	P3, P13, P16, P18, P21, P23	6
Little awareness of teachers	P3, P6, P14, P19	4

Source: Direct Research.

Thus, it was possible to verify in Table 3 that the speeches of six participants constituted the central idea of reduced workload, four participants answered the third question, constituting the central ideas of few materials and infrastructure in the basic unit and little awareness of teachers and two nurses reported the central idea of the lack of teamwork. In this sense, the collective subject discourse is based on the central ideas presented:

> 1st central idea: Few materials and infrastructure in the basic unit –There was often a shortage of tools, materials for health education, [...] even physical space, which could offer more alternatives for learning to work in diabetes health education [...] units had little infrastructure [...] (P6).

> 2nd central idea: Lack of professional teamwork– There was a shortage of professionals other than the nurse, because a multiprofessional team is very important to better serve the patient with diabetes, such as nutritionist and physical educator [...] in my training, I had never seen the joint work of several professionals in practice (P13).

> 3rd central idea: Reduced workload – I had a training with few hours to work in educational activities […] I mean, I knew the importance, because the teachers made it clear in theory, but I never had time to do health education in practice (P3).

> 4th central idea:Little awareness of teachers – Perhaps there was a lack of awareness on the part of the teachers of my formation about the need to work in the educational work to learn to see the importance of this[...] (P3).

With respect to the fourth and last question, 'What is your opinion about the nurse's role in the

health education practice in the Family Health Strategy, together with the chronic conditions, especially with people living with *Diabetes mellitus*?', three central ideas emerged: promotion of care and self-care, family support and prevention of complications (Table 4).

Table 4. Central ideas, participants and frequency of the fourth question. Teresina, State of Piauí, Brazil, 2015.

Central ideas	Participants	Frequency
Promotion of care and self-care	P1, P3, P4, P5, P7, P10, P15, P19, P22	9
Family support	P4, P9, P10, P13, P17, P17, P23	7
Prevention of complications	P2, P5, P12, P19, P20	5

Source: Direct Research.

It was observed in Table 4 that there was a greater frequency in the construction of participants' discourses within the central idea of promoting care and self-care (nine participants). In the sequence, seven discourses were obtained that constituted the central idea of family support and five in the central idea of prevention of complications. The collective subject discourses based on the central ideas presented in the last question were:

> 1st central idea: Promotion of care and self-care–the nursing work is of extreme importance for the patient with diabetes[...]I think it is very important[...]because we teach and promote the notion of care, especially self-care, that most patients know they should have, but do not or do not take seriously(P19).
>
> 2nd central idea: Family support–without doubt, this practice of education is with the nurse [...]it is the professional who must have great management in the issue of health education, and not only with the patient with diabetes himself, but also must involve the family in the care, showing the importance of physical and emotional support[...] (P15).
>
> 3rd central idea: Prevention of complications–the role of the nurse in health education is fundamental, since the nurse helps to make the patient aware of the importance of maintaining good glycemic control, mainly to prevent complications [...] (P2).

Discussion

The results emphasize that the nurse develops health education activities in Primary Care for the person living with *Diabetes mellitus* through lectures, group orientation, nursing consultation and home care. Indeed, researchers have pointed that the formation of coexistence groups among people living with *Diabetes mellitus*, composed of qualified health professionals, can be an alternative to share successful experiences, as well as barriers faced, to achieve adherenceto medication treatment, food plan follow-up and physical exercise (Faria, Rodrigues, Zanetti, Araújo, & Damasceno, 2013). In addition, the study by Chaves, Teixeira and Silva (2013) highlights that nursing consultation is of great importance for the users, since they begin to live better with *Diabetes mellitus* from the moment they create bonds with the nurse that continuously promotes educational actions to improve the quality of life due to working in the health-disease process.

These educational actions are based on pedagogical actions, through the performance of a multidisciplinary team, and in individual nursing appointments that aim to know the signs and symptoms of the disease, the acute and chronic complications, the benefits of good nutrition and physical activity (Torres, Pereira, & Alexandre, 2011). There are also educational games that, besides being instruments of communication, expression and learning par excellence, facilitate and intensify the exchange of knowledge between people living with *Diabetes Mellitus* (Torres, Franco, Stradioto, Hortale, & Schall, 2009; Rodrigues, Vieira & Torres, 2010).

Several researches have pointed out that the nurse is considered the health professional of the team that assumes the health education as its main focus of action in the pedagogical actions, especially in Primary Care, stimulating the independence, responsibility and autonomy of the care in search of improving the quality of life of people living with *Diabetes mellitus* (Torres et al., 2009; Van Camp, Huybrechts, Van Rompaey, & Elseviers, 2011; Nunes, Marques, Machado, & Silva, 2009; Goodman, Asencio, & Torre-Aboki, 2013).

It was also identified in this study that, through home care, Primary Care nurses provided information to the family members of the person living with *Diabetes mellitus*. Researchers revealed that it is through the home visit that the nurse knows the context of the family and the home environment of the person living with *Diabetes mellitus*, as well as the resources that the community has to use them to treat the chronic condition (Torres, Santos, & Cordeiro, 2014). Considering the family as a support network for the person living with *Diabetes mellitus*, research highlights the importance of knowing family characteristics in home environment, its peculiarities of functioning and demands, from the perspective of the relatives (Santos et al., 2011).

In an international randomized controlled clinical trial, it was found that the follow-up of people living with Type 2 *Diabetes mellitus* under the primary care responsibility of the Primary Care nurse during a period of 14 months was satisfactory,

regarding the control of metabolic clinical parameters related to average reduction of glycosylated hemoglobin (HbA1c), glycemic levels, blood pressure and lipid profile (Houweling et al., 2011). From this perspective, the Pan-American Health Organization (PAHO), in editing the Resolution 'Human resources for health: expanding access to qualified health professionals in health systems based on primary health care', underlines the importance of nurses' practice in advanced practices, anchoring health systems based on Primary Health Care in Latin America (World Health Organization [WHO], 2010). Although many Latin American countries are committed to the training of nurses for advanced practice, it is necessary to expand training strategies for nurses with expertise in the areas of specialized knowledge

In the present study, the nurses expressed reduced hours during higher education (rapid internships in educational activities), as well as the lack of infrastructure and few resources in the Family Health Strategy, the lack of teamwork and little awareness of nursing teachers on the importance of acting in health education for people living with chronic conditions. A research developed in Colombia concluded that although nurses recognize the importance of carrying out educational actions with people living with *Diabetes mellitus*, clinical teaching of nursing in universities and community services deserve to be expanded and deepened in order to provide better service to people living with *Diabetes mellitus* and their families (Aponte-Garzón & Hernández-Páez, 2012).

Nevertheless, it is important to emphasize that the professional practices of nurses in an interdisciplinary team in basic units are influenced by the lack of infrastructure, few materials and inputs, which can undermine the development of the planned activities (Pedrosa, Corrêa, & Mandú, 2011), especially when it is related to the lack of instruments necessary for the development of health education in chronic conditions, as reported by the nurses in this study.

Also with regard to undergraduate training, it is necessary that higher education institutions are increasingly committed to qualify nursing teachers to provide training for the nursing student and other undergraduate health courses involved in the care of people living with *Diabetes mellitus* (Zanetti, 2015; Corbellini et al., 2015).

Among other demands are the scarcity of qualified human resources in health, the inherent complexity of health services, the lack of evidence in the nursing literature to support this practice, lack of recognition of the specialist nurse by the population, difficulty in working in complex health systems and work sharing, participating in an interdisciplinary team, and the notorious shortage of innovative approaches in nursing curricula (Zanetti, 2015).

Importantly, at undergraduate and graduate level, nurses' training should encompass knowledge based on robust evidence in nursing and health, as well as skills and competences to constitute and lead interdisciplinary teams, enabling creative, effective and low cost solutions to the population (Organização Panamericana da Saúde [OPAS], 2013). It should be emphasized that nurses, in the exercise of health education in the care of people living with chronic conditions, especially *Diabetes mellitus*, the value of knowledge and acquisition of skills through training permeates greater professional security.

In general, nurses are expected to be able to cope with emerging health challenges in Primary Care, such as the rapid change in social structures, the need for rapid production and availability of knowledge applied to population health and new health technologies (Organização Panamericana da Saúde [OPAS], 2013). For that, they need continuous training, so that the whole process of social transformation is followed, which occurs permanently (Aponte-Garzón & Hernández-Páez, 2012; González & Font, 2012). In this perspective, in Brazil, the Permanent Education in Health has been considered a strategic reference of the Ministry of Health, whose essential elements are learning at work, in which learning and teaching are incorporated into the daily life of organizations, enabling the transformations of professional practices (Brasil, 2014).

In this sense, the emphasis given to the importance of educational achievements with people living with *Diabetes mellitus* was clearly quoted by the nurses in the Primary Care, participants of this study,

> […] the nursing role is extremely important [...] for these patients [...] I think it is very important [...] because we teach and promote the concept of care and self-care for people with chronic diseases, including people living with *Diabetes mellitus*.

This transcription is consistent with the concept of being an educator for people living with *Diabetes mellitus*, recommended by the International Diabetes Federation (IDF), as a person with training and expertise to work in the management of education for self-care and support for people living with *Diabetes mellitus*, family and community (International Diabetes Federation [IDF], 2015b).

Thus, it is important to strengthen the health education process in order to overcome persistent

challenges, such as the disarticulation of the different areas of training, the mismatch between theory and practice, and the difficulties of service workers to recognize the peculiarities and assist in this process. Overcoming or minimizing these challenges may qualify the work processes, training the professionals and, consequently, contribute to the integrality of health actions (Fernandes et al., 2015).

Due to these challenges, it is important that health professionals, especially nurses, are genuinely open to training and postgraduate courses for the exercise of educational activities in Primary Care for people living with *Diabetes mellitus*. It is necessary to understand the importance of being a health educator looking to provide a better quality of life for people living with *Diabetes mellitus*. Educational actions are primarily aimed at facilitating understanding therapy and overcoming barriers and difficulties, motivating and educating people living with *Diabetes Mellitus* to take their own daily care deftly.

In addition, it is recommended the implementation of the Permanent Health Education in Primary Care for the improvement of a continuous training, being possible the innovation with positive and precise results in the assistance of the nurse for the people living with *Diabetes mellitus*. In this sense, besides contributing to the improvement of the quality of the assistance given to these individuals, this study may also constitute scientific support for future studies related to the subject.

Final Considerations

In the perspective of Primary Care nurses, this study evidenced important educational actions developed for people living with *Diabetes mellitus*, through lectures, group orientation, nursing consultation and home care. Giving voice to Primary Care nurses who carry out educational actions with people living with *Diabetes mellitus* is essential to highlight the value of this care, aiming at preventing complications and improving quality of life.

In terms of academic training, whether at undergraduate or graduate level, it was possible to perceive that nurses identified the need for Permanent Health Education. However, they expressed, in general, a reduced workload for the practice of educational actions mainly at the undergraduate level. Moreover, it was also revealed as aspects that interfered with their training the availability of few resources and infrastructure in the basic unit, the lack of teamwork and the little awareness of teachers about the importance of acting in health education with people living with chronic conditions, especially with *Diabetes mellitus*.

An important consideration is the relevance of the knowledge (theoretical, practical, technical and expertise) identified in nurses' discourses during training to work in health education with people living with *Diabetes mellitus*. In this sense, it is recommended the Permanent Education in Health for the incorporation of new knowledge, as an important step for the direction of changes and reorientation of educational practices with people living with chronic conditions, especially with *Diabetes mellitus*.

It is worth emphasizing that discussions about educational practices in health with people living with *Diabetes mellitus* opens space for nurses to work in Primary Care, especially in the promotion of care and self-care, as well as the incentive of family involvement, essential in physical and emotional support, aiming to the glycemic balance and the prevention of complications, according to the of collective subject discourses identified in this study.

Thus, it is fundamental that higher education institutions are increasingly committed to encouraging discussions with nursing teachers in order to provide training for nursing students involved in the care of people living with *Diabetes mellitus* through the development pedagogies and teaching strategies that value the nursing student, actively participating in this educational process to improve teaching, stimulate research during academic training and reflect on the assistance with this population.

Given the qualitative approach selected, this research has some limitations, such as the development of data collection in a single specific reality. It is recommended that this study design be reproduced in other Brazilian regions and countries with different cultures, in order to broaden the understanding of the formation of the Primary Care nurse on educational actions with people living with *Diabetes mellitus*. Furthermore, it is mentioned the fact that the interviews were carried out in the professional environment of the participants at the end of the work shift, which may have caused discomfort for the nurses to express their experiences and ideas after a continuous and tiring day in the basic health units collected.

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