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HOSPITALIZATION AS A SETTING FOR HEALTH EDUCATION FOR PEOPLE WITH DIABETES MELLITUS

A hospitalização como espaço para educação em saúde às pessoas com diabetes mellitus

La hospitalización como espacio para la educación en salud a las personas con diabetes mellitus

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ABSTRACT

Objective: to understand how nurses develop nursing care for people with diabetes, focusing on health education in the hospital setting. **Method:** descriptive qualitative research. Were interviewed 13 nurses in a general hospital and carried out conventional content analysis of the data. **Results:** emerged two categories: obstacles in the educational care to the hospitalized person with diabetes, citing: lack of professionals, excessive work demands, structure and inadequate materials, lack of health education routines and failures in continuing education; and the possibility to develop the educational dimension of nursing care in the hospital, involving: education in individual and collective health; diabetes nurse specialist and communication between health services. **Conclusion:** hospitalization is a propitious moment to carry out health education to people with diabetes and nurses must be proactive and identity themselves as organizers of educational activities for hospitalized people with diabetes.
Descriptors: Diabetes mellitus; Nursing; Health education; Hospitalization.

RESUMO

Objetivo: compreender como os enfermeiros desenvolvem os cuidados de enfermagem às pessoas com diabetes na perspectiva da educação em saúde no ambiente hospitalar. **M**étodo: pesquisa qualitativa descritiva. Foram entrevistadas 13 enfermeiras em um hospital geral e realizada a análise de conteúdo convencional dos dados. **Resultados:** emergiram duas categorias: obstáculos no cuidado educativo à pessoa com diabetes hospitalizada, citando: falta de profissionais, demanda de trabalho excessiva, estrutura e materiais inadequados, inexistência de rotinas de educação em saúde e falhas na educação continuada; e possibilidades para desenvolver a dimensão educativa do cuidado de enfermagem, envolvendo: educação em saúde individual e coletiva, enfermeira com expertise em diabetes e comunicação entre os serviços de saúde. **Conclusão:** a hospitalização é um momento propício para a educação em saúde às pessoas com diabetes e os enfermeiros devem ser proativos e articuladores de ações educativas para as pessoas com diabetes hospitalizadas.
Descritores: Diabetes mellitus; Enfermagem; Educação em saúde; Hospitalização.

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RESUMEN

Objetivo: comprender cómo los enfermeros desarrollan el cuidado a las personas con diabetes desde la perspectiva de la educación en salud en el ámbito hospitalario. **Método:** investigación cualitativa descriptiva. Fueron entrevistadas 13 enfermeras de un hospital general y realizado análisis de contenido convencional. **Resultados:** emergieron dos categorías: obstáculos en la atención educativa a la persona hospitalizada con diabetes: falta de profesionales, trabajo excesivo, estructura/materiales inadecuados, falta de rutinas de educación en salud y fallas en la educación permanente; y, posibilidades de desarrollar la dimensión educativa de los cuidados de enfermería: educación en la salud individual y colectiva, enfermera especialista en dm, y comunicación entre los servicios de salud. **Conclusión:** la hospitalización es un momento propicio para llevar a cabo la educación en salud a las personas con diabetes y los enfermeros deben ser proactivos y organizadores de actividades educativas para las personas hospitalizadas con diabetes.

Descriptores: Diabetes mellitus; Enfermería; Educación en salud; Hospitalización.

INTRODUCTION

Brazil occupies the fourth position among the countries with the highest prevalence of people with Diabetes *Mellitus* (DM). There are more than 14 million Brazilians who have DM within the age group from 20 to 79 years old.[1] As a result of the growing number of people with DM, and advances in complications resulting from this disease, the number of people who need hospitalization and its index has been increasing progressively.[2,3]

When DM is the main cause of hospitalization or even when this disease is present as a comorbidity associated with the reason for hospitalization, it is necessary to have a specific look at these people with the intention of recovering/rehabilitating them in relation to the cause of the hospitalization and to prevent new complications and readmissions through actions aimed at promoting their health.

Health education in hospital care is an important and propitious source for health promotion.[4] In hospitalization, people are more sensitive to their chronic health condition and manifest a desire to take better care of themselves.[5] Health education is one instrument for the construction of knowledge aimed at adherence to treatment and a simple way to increase the quality of life.[6] It is, therefore, an indispensable tool to operationalize the role of nurses in guarantying guidelines to DM people on the disease and on the procedures to be followed in order to enable adherence to the treatment.[6]

The combination of different educational interventions provided individually or as a group to adult DM patients influences the reduction of DM complications, especially vascular ones. Studies analyzed in a systematic review pointed out that individual sessions of DM education and self-care guidelines improved nephropathy, cataract, retinopathy, peripheral neuropathy and cardiovascular events.[7]

Hence, health education actions in the care of people with DM show an effective method for acquiring and sharing information, constituting an activity performed by a dynamic, interactive and continuous process of learning. It enables these patients to execute friendly practices to their health and well-being, self-care skills, educating and preparing people and their families to have autonomy. This process should consider the characteristics of the learner in the most diverse situations and environments, using strategies of individual and/or group assistance.[6,8-10]

Despite the well-known benefits of health education, the educational practice of nurses in a hospital inpatient unit tends to reproduce the biomedical model, centered on the compartmentalized body and on a power relation of scientific knowledge on the patient, contributing to their empowerment.[11] It would be essential for hospitals to establish policies and procedures that would guide the care of the person with DM hospitalized, including health education actions.[12]

The role of the nurse in health education is highlighted, since the training of this professional includes the knowledge and skills necessary to act in this area, integrating education activities as a form of care.[13]

The reality of nursing care practice in hospitals still focused on biological and technological aspects is also an issue in our daily lives. In general, nurses are engaged in functions that are divided between the demands of the assistance directed to technical procedures and management, finding little time for the development of health education activities.

The practice within hospital institutions needs to be rethought, due to its complex organizational structure, with regard to the roles of professionals, the division of labor, the hierarchy, and the norms that govern them.[14]

Given the aforementioned, this research pursues to understand how the nurses of a general hospital in the South of Brazil develop nursing care for people with DM from the perspective of health education in a hospital environment.

METHOD

A descriptive research with a qualitative approach was carried out. Data were collected between September and October 2014, through interviews with a semi-structured script, with 13 nurses working in a general public hospital in the South of Brazil, of which 12 were specifically in Medical-Surgical Hospitalization Units for adults and a nurse worked at the Endocrinology Outpatient Clinic linked to the hospital.

The subjects' choice was intentional, seeking the perceptions of nurses that work in the three different work shifts (morning, afternoon and evening) for more than one year and who worked in one of the four Adult Hospitalization Units of the referred hospital (two units of

medical clinic and two units of surgical clinic). It was also included a representative nurse of the ambulatory sector of that hospital structure.

Interviews happened at a place and time chosen by the interviewees, usually in a reserved room in the hospital itself and after working hours. Interviews explored how nursing care has been developed for hospitalized DM people and stimulated the creativity of nurses in the search for improvements for the practice, aiming at the "how should be the ideal nursing care" for these people, in the perspective of education in a hospital environment. Interviews were recorded in an electronic device and transcribed by the leading researcher, naming interviewees with codes E1 to E13.

The transcribed interviews were analyzed qualitatively through the dynamics of analysis of conventional data content[15] and with the support of the *Atlas.ti 7* software for data organization.

The apprehension of content by the leading researcher became more facilitated by the fact that she conducted the interviews and the transcripts herself. Then, all the transcriptions were read in full and sequentially by the authors, giving the broad notion of all the content. Finally, each of the transcribed interviews was carefully re-read, highlighting the words or phrases in a coding process. In a second moment, the codes related to the educational care of the people with DM were selected and grouped or how this care should be, if more improved. The code groups revolved around two main themes, expressing what nurses perceived about health education being carried out, highlighting the difficulties for their implementation and the possibilities for this education to occur more effectively, considering their reality.

Ethical principles were respected in accordance with the Resolution No. 196/96 from the National Health Council, including the signing of the Free and Informed Consent Term. This research was approved by the Human Research Ethics Committee from the *Universidade Federal de Santa Catarina (UFSC)*, according to the No. 710.731.

RESULTS AND DISCUSSION

Through the data analysis, two main categories appeared: 1) Obstacles in the educational care to the hospitalized person with diabetes, and 2) Possibilities for developing the educational dimension of nursing care in a hospital.

1) OBSTACLES IN THE EDUCATIONAL CARE TO THE HOSPITALIZED PERSON WITH DM

It was observed that nursing care for people with DM in the hospital environment involves numerous aspects including those of an institutional-administrative order, and those more specific to the nurse, that is, procedures and direct care to the patient.

Given the complexity of the activities to be developed by the nursing team in this context, some limitations in the nursing care specific to the educational dimension of the people with DM become evident:

Staff dimensioning and excess of labor demand

The insufficient number of health professionals, with an emphasis on nursing professionals, has been described as a problem to carry out orientations and in the perspective of care integrality, aiming not only to recover from a specific clinical change. This situation ends up compromising the structured and effective accomplishment of health education activities in a hospital environment and, consequently, impairing the quality of nursing care for people with DM.

Associated directly with the professional deficit is the high demand for labor, which includes not only the direct care of patients (clinical and educational dimension of nursing care) but also the activities of managing the dynamics of the hospitalization unit (managerial dimension of nursing care). The interviewees reported that health education activity is quite limited due to other daily activities, which occupy most of the time:

> *We cannot do this care of excellence because there are more than twenty-one patients to take care of, there is a patient who is doing badly, you have to supervise the technician, you have to follow up, you have to go down for examination, then the amount of professionals I think extremely relevant, this sizing of work is outdated. The Units have practically the same number of patients and the number of professionals from twenty years ago when the profile of the health-disease people has changed too much, so I think they have to review this amount of professionals.* (E1)

Inadequate physical space and material resources

Hospital infrastructure issues, including inadequate physical space and lack of material resources to carry out educational activities, were cited by the studied interviewees as obstacles to the development of nursing care for people with diabetes in daily hospital settings.

The physical space of the hospital is not a facilitator for educational activities since it is deficient in specific environments such as rooms or solariums for this purpose. Besides, it was added as an obstacle to the development of educational care, the deficiency of standardized materials such as videos, booklets or folders, which could be used by the nursing team as teaching resources to people with DM. The following statement exemplifies some situations:

> *[...] I think units should have a place where we could talk to this patient because it's very complicated for someone to take care of a patient and sometimes make a firmer, more incisive orientation in a room where there are other four patients. In addition to the issue of secrecy that we have, there are several other ethical issues that are very complicated, you expose the patient. [...] have a more reserved space to talk to this patient, having more*

professionals to get to do... while one does one thing the other can do another. [...] Today, we do not have a teaching material to give to the diabetic patient; sometimes he stays there for a month, stays alone in the room watching television. So if we had a material, a booklet, pretty, illustrative, I do not know, I could give it to the patient, at least if he was going to be hospitalized for sure, at some point he would pick up the booklet and try reading or give it a look into it, if he did not know how to read, he would ask someone to read what was written, do you understand? (E1)

Lack of health education routines

At the hospital where the study took place, the interviewees pointed out that there were no specific, structured or systematized routines with a record of educational care that would assist in the development of health education activities in the hospital environment. Thus, health education for people with DM occurs in an eventual way, as shown in reports below:

[...] orientation comes at a time when we perceive the difficulty, others also complements if they perceive the difficulty, but we do not have a record of who guided and what guided. (E1)

[...] It is very difficult to make an orientation, sometimes in a conversation this arise, but there is not a protocol, to visit and pass this guidance, happens by chance, I'm passing in a room, then you give the guidance, but, oh, you are running, you did not have time to talk ... there is no manual, a script, something that might make it easier to say it, this and that. (E4)

Lack of updating of knowledge and new technologies

To carry out quality health education for people with DM, it would be essential to provide continuing education training for the nursing team, encompassing an expanded view of care for these people, not only focusing on disease and technical procedures but also evaluation and prevention of complications, with up-to-date knowledge.

In fact, I have little knowledge about hospitalized diabetic patients, I cannot think of much care, a protocol would help me a lot in this knowledge because I cannot think of other things to add. How many diabetic patients do we have hospitalized for other reasons, and who do not pay attention because they are diabetic? Except for HGT control and insulin correction. We sometimes do not realize that the patient needs more orientation. [...] I do not feel very prepared to guide the diabetic patients well in hospital, so I think the permanent education they have inside the hospital should take a specific look at this scenario, in order to enable professionals to evaluate the situation of diabetics. (E9)

With reports, we understand that there are many obstacles that seem to be limiting the development of activities that go beyond specific clinical control, such as those involving health education for people with DM in the hospital environment. Nevertheless, nursing professionals perceive the importance of inserting these activities into the daily routine of nursing care, provided that they are better structured, planned and with better working conditions.

Given the recognition of the reality experienced in nursing care for hospitalized DM patients, nurses interviewed pointed out some possibilities to seek improvement and implementation of actions directed at health education in the hospital environment, as shown in the following category.

2) POSSIBILITIES FOR DEVELOPING THE EDUCATIONAL DIMENSION OF NURSING CARE IN A HOSPITAL

Many ideas have been brought to overcome the obstacles of daily nursing care and that reflects in the development of health education activities in the hospital environment, among them:

Structured health education activities: individual and collective

By exploring the possibilities of health education in the hospital environment, we had as a result of the propositions of educational activities both individually and in groups of people with DM, integrating their relatives or caregivers. They included the indication of the need for didactic resources with the use of educational playful materials (videos, booklets, folders) and the use of specific instruments for nursing education records (for example, a checklist of guidelines attached to the medical record).

Regarding the individual educational activity, the moment of Nursing Historical record was recognized as ideal to initiate educational care, considering the moment of greater intimacy with the DM patient, when the nurse becomes aware of the life and health context of that person, being able to define needs and predict goals and actions focused on the educational care of the DM person and family.

The moments of accomplishment of some technical procedures, such as the verification of capillary glycemia or the administration of subcutaneous insulin, were also highlighted as opportunities to carry out individual health education, guiding the correct way of proceeding. It would also be a moment to encourage the person with DM to carry out these activities under the supervision of the

nursing team in order to develop self-care and skills with the management of these materials, besides translating into a participative educational care, where the person with DM and the family become active in the learning process.

The collective activities for groups of hospitalized DM people were described as important and possible to be performed in the hospital environment, considering the large number of patients with DM in the medical-surgical hospitalization units, who could benefit from the exchange of experiences, self-care stimulus, and knowledge sharing. Group activities for people with DM could be programmed, with a wide dissemination of dates, times and contents, and with the collaboration of health professionals from different areas (nutrition, psychology, social service, medicine, others), as well as nursing. These ideas have emerged in several accounts, as exemplified in the following:

> *I am in favor of setting up a group, bringing together the patients who have DM, because I think they exchange a lot of experience and sometimes the mistake made by one when we will individually guide, another one also makes the same mistake, but do not remember. So when they are together I think there is a lot of it, so much discussion. So I am in favor of a group, of making groups. I also think that it is important for the family to be together, at a certain time, maybe at visiting hour which is usually in the afternoon and also at the end of the week [...], it is necessary to implement groups. [...] and with the involvement of the family, because many of them here, we see that they do not have a chaperone, they have a visit, a visit does not stay with them at home, the one who takes care and stays with the patient longer. This person also has to be oriented, in the same way, regarding the diet, in relation to the insulin schedule, in relation to the medication schedule, amount of food, type of food, then this hospitalized person, this hospitalized patient needs a family network, a support, a support network, if this person undergoes a hypoglycemia crisis at home, someone has to know how to deal with it!* (E3)

Nurse with DM expertise and actions coordinator

Also, as a result, we find the valuation of the performance of an exclusive nursing professional to assume the performance of specific educational activities for people with DM, but involved not only with health education but also with: the follow-up of patient with DM during hospitalization with the multidisciplinary health team; the creation and implementation of educational materials; and the articulation of actions with the services of the health network. The care nurses perceive themselves as impotent to completely assume such responsibilities associated with the other activities developed during the work shift and the dynamics of the operation of the hospitalization units. They believe, however, that this professional would bring another dynamic to the care of the DM patient.

> *I think it would first need to have a nurse who only care for that part, a nurse who directed the care to diabetic patients to do all this monitoring during the hospital stay. So I think to be possible, in the ideal hospital, "human resources" the first point.* (E7)

Networking among health system services

The communication and articulation between the points of the health services network were seen as a challenge to be faced for their full insertion in hospital care activities. They emphasized the importance of these activities for the continuity of care and education for people with DM for the possible reduction of readmissions. They indicated ways of making possible the accomplishment of actions for reference and against reference in order to carry out the work articulated in a network between the services of the health system, involving the hospital (medium and high complexity care), outpatient clinics (specialized care) and Basic health units (basic care).

Some ideas derive from positive experiences developed in the workplace with the effective realization of communication and articulation between the hospital and some basic health unit. Nonetheless, it was observed that those were specific situations, not being part of the daily reality of health care. The following reports show the desire to implement counter-referral to maintain continuity of care, including health orientation/education at all levels of health services that patient with DM use:

> *[...] this contact with basic care would be fundamental, so, we do not have this support here, this way of acting in the hospital, to have that contact with the professional, to pass on the information to which the patient was submitted, what accompaniment was done, what the patient needs or go home with, so it would be ideal if we also had this communication, which would be fundamental for the follow-up.* (E10)

These results can be considered as possibilities to be sought by managers and nursing professionals to insert educational activities in the hospital environment, in order to transform the situations currently lived in the reality of health services in more harmonious situations, collective and self-care promoters for people with a chronic condition of DM.

The development of health education in the hospital environment, even recognized as a necessity and as part of the nurses' assignments, faces several obstacles that still need to be overcome. The inadequate staff sizing associated with excess labor demand are aspects that directly affect the performance of this important activity. Priority is

given to clinical treatment, placing health education as an intentionally performed and using opportunities that arise in the development of clinical care.

The lack of professional nurses is contrary to what was established by the *Conselho Federal de Enfermagem (COFEN)* [Nursing Federal Council], through Resolution 293/2004[16], which "sets and establishes parameters for the dimensioning of the nursing professionals' health institutions and the like". A recent analysis of the nursing staff dimensioning concluded that the number of nurses working in health institutions is lower than recommended. Even after more than ten years of personnel size indication by the *COFEN*, Brazilian nursing remains with a workload that is not adequate to Resolution 293/2004, especially regarding the percentage of nurses, often much lower than recommended by the classification of patient care needs.[17]

Nurses who work in hospitals are often caring for people with multiple chronic diseases and needs that need to be met in a short time. As a result, nurses tend to prioritize immediate aspects of care, leaving aside, for example, the educational activity and prediction of problems that will occur at home and how to solve them.[18]

Aspects such as the inadequate physical space, the lack of educational materials and the lack of specific nursing routines for health education activities are a reality that does not help the accomplishment of these activities, showing that the hospitals were not, and still are not considered as health education, limiting the development of health promotion and extended/full-time care as it should be.[19]

It is necessary that a paradigm shift takes place where the idea of the hospital is cultivated as an environment not only for curing diseases but also as a space for health education and health promotion. A hospital is a strategic place for interventions and new practices, which can contribute to the accomplishment of activities that promote health, health education and the creation of affective bonds in the hospital space.[19-20] Nonetheless, it is considered that for this purpose, the practices within hospitals need to be rethought, as well as the doctor-patient, physician-team, and health care system as a whole.[20]

The level of knowledge of nurses in acute care units regarding the care of people with hospitalized DM and clinical management of DM was perceived as low, and they did not experience continuing education in recent years.[21] These findings validate what we found with nurses recognizing that they do not have the necessary knowledge for a safer practice.

It is essential for health professionals that care for people with DM remain up-to-date on the knowledge about DM management.[22] The role of continuing education is essential to support nurses' knowledge in the face of complex clinical conditions, such as DM. This knowledge is a significant factor in providing quality care to a growing population, such as people with DM.[21]

The lack of specific knowledge of the nurses about the DM can generate insecurity in the accomplishment of the clinical care and, still more, in the accomplishment of the education in health. Some nurses are not well aware of the pharmacokinetics of insulin, blood glucose targets for hospitalized patients or the appropriate hypoglycemia treatment, and that all caregivers are insufficiently aware of these topics.[23]

A list of common barriers in hospital institutions can be highlighted as regards the care of people with hospitalized DM, among them i) inability to coordinate the care triad: monitoring of blood glucose, insulin administration and meal consumed; ii) incomplete communication among health professionals; iii) inadequate knowledge of factors that contribute to hypoglycemia; iv) failure to recognize DM as a clinical problem; v) little empowerment to talk about the management of glucose levels; and vi) lack of attention to glucose levels.[24]

Such barriers/obstacles can be overcome with the planning and implementation of continuing education for nursing professionals in the hospital environment, with some specific care model for the care of people with DM in the hospital setting that focuses on the real needs of this population.

Our study pointed out some possibilities for the implementation of health education for people with DM in the hospital setting, in order to go beyond the daily clinical and managerial care of nursing care. The possibilities cited were: the realization of structured health education in an individual and collective way; the existence of a nurse with DM expertise; and the establishment of effective communication for the accomplishment of an articulated work in the network between the services of the health system.

Likewise our research, a study highlights the creation of collective spaces in the units of work that guarantee discussion among the professionals of the hospital environment, with emphasis on listening to the patients.[25] It is believed that the care teams can play an important role in the life of the person and his family during the hospitalization period.[25] Through the spaces of conversation, through art, speech and listening and continuous interaction, fears, hidden speeches, blindness, possibilities can be made explicit through a horizontal relationship from person to person permeated by trust, cooperation, and responsibility.[25] Living groups, psychodramatic techniques, and meetings are cited as devices that are being used to contribute to this process of producing subject-citizens prepared to face their health problems.[25]

In addition to the health orientations developed by nurses concomitantly with day-to-day care practices, there was an indication of structured health education, systematized and coordinated by a nurse or by a group of exclusive nurses for this purpose, as an important support service for care with hospitalized DM. This idea was considered feasible and beneficial from the perspective of the improvement of the nursing care to the people with DM developed in the hospital. This has the potential to

materialize with the creation of the role of the "specialist nurse or MD expert", involving, in addition to individual and collective health education for people with DM and their families, the attribution of developing training actions to nursing professionals and to carry out communication and articulation actions with points of the health services network.

The number of nurses specializing in DM is low, while the number of people with DM is growing more and more. Faced with this situation, hospitals end up offering poor care, causing avoidable damage to people with DM during hospitalization.[26] The inclusion of skilled nurses is vital. Innovative teams of specialist nurses are reducing hospitalizations by educating professionals and patients in DM control.[27] Still, less than one-third of the hospitals have DM specialists nurses working with hospitalized people. General nurses can provide general care to people with hospitalized DM, but they still need the support/assistance of a group of DM skilled nurses.[26]

An educational program was created for care nurses responsible for the care of hospitalized DM people. In this program, nurses are recruited to serve as DM management mentors and receive advanced education related to the principles of teaching and learning about the seven self-care behaviors indicated by the American Association of Diabetes Educators (AADE) and DM management strategies.[23] Mentoring nurses become responsible for empowering the other nurses and DM hospitalized people through knowledge, as well as defending people with DM and facilitating referrals to ambulatory service.[23] Thus, the educational program aims to promote the development of mentoring nurses in the management of DM and also to create teaching tools that can be used by care nurses to solve practical gaps or skill deficiencies.[23]

Another example was the study that was concerned with the impact that a specific care team could generate in the care of hospitalized DM people.[28] For this reason, a team was formed with five DM specialist nurses dedicated to the care of hospitalized people, with support a consultant, and a diabetologist.[28] A nurse responsible for liaison with the DM team was nominated in each Unit, and each individual diagnosed with DM was identified on admission.[28] The team had a significantly positive impact on the decrease of hospitalization time length of people with DM.[28]

DM education is essential for self-management of the chronic health condition by people experiencing DM. A face-to-face orientation and printed instruction should be part of a teaching plan, as well as referral to an Outpatient Diabetes Center for follow-up provided by certified DM educators, helping people meet their self-management needs for the chronic health condition.[29]

In the search for communication methods to perform an articulated work among the services of the health system, the nurses perceive that it is possible to contact them by telephone, in writing (discharge summary) and/or even in person, according to the complexity of each case. These actions have been developed in a timid manner in the study scenario, although, nurses believe that extending these actions could enhance the continuity of care, including the continuity of health education to DM patient using health service networks.

In view of the expanded concept of health, it is considered that health promotion is possible and necessary in hospital settings and that the actions developed in this direction may lead hospitalized patients and their families to seek a better quality of life.[19] In this perspective, we reinforce our understanding of health education in the hospital environment as part of the range of actions that converge towards health promotion, which should occur at any level of the healthcare network.

Nurses, in addition to exercising care focused on nursing care, have their profession as an educator, promoting health education activities that provide the prevention of DM complications and the promotion of health; as well as being fundamental instruments to motivate people with DM to have positive attitudes towards their health and to be protagonists of their care.[13]

The dimension of education that is presented through educational actions is strengthened in nursing work, with nursing professionals acting as mediators of the teaching-learning process in a fundamental process for the promotion of health.[11] In our study, however, we find that nurses do not always assume this role of mediating the teaching-learning process for people with DM, using as a justification for the development of a deficient educational care the daily obstacles of nursing practice in the hospital environment. In this sense, there seems to be no perception among nurses and the nursing team that they should fight for the necessary changes, both in the nursing work process and in the improvement of the health services context.

Despite the barriers or elements that limit the practices of health professionals in the attention to people with DM aiming at adherence to care and treatment, it is possible to devise strategies so that these professionals are able to take innovative positions, within their capacity of action and that these can be applied in health organizations.[30]

CONCLUSIONS

There are multiple faces in the development of nursing care for people with DM in the hospital environment, highlighting obstacles and possibilities, with a perspective of making the health education activity effective in the daily life of the hospital environment.

Obstacles presented before nursing care to people with DM in the hospital environment help to apprehend the reality of a very complex context. We can say that the obstacles found include the lack of professionals, the excess of work demand, the physical space, and the inadequate material resources, the deficit in health education for the people with DM and in the continuing education for

the professionals. These are not new problems and have already been recognized in other studies and in orientations proposed by scientific entities, in nursing organs or in health congresses/symposia, but are still a reality present in the current health services.

The ideas highlighted as possibilities of health education in the hospital setting are appreciable and may have a unique importance for advancing the qualification of health education for hospitalized DM people. Although we have been discussing for a long time how to improve and insert actions aimed at health education in health care, especially in the hospital environment, achievements, when they occur, go slowly.

These findings make us think that we need to move forward, seeking the transferability of academic and scientific discussions to actual safety practices. Nurses who are at the forefront of health and nursing practices do not seem to perceive their protagonism as agents of change or position themselves in a proactive, articulating and effective action, in order to bring about the necessary changes to break down barriers and overcome obstacles.

We understand that there is a fine line between "wanting to do" and "being able to do". Many limitations stem from the working conditions provided by the context of today's health systems and services. However, in recognizing the obstacles of daily nursing care and raising possibilities, nurses need to take an active stance, seeking strategies and sources to improve certain aspects of their professional practice.

Bearing the aforesaid in mind, we believe that instruments or models of nursing care can serve to subsidize the discussion about the ideal conditions for the development of certain nursing practices, such as extended care for people with DM in the hospital environment. Therefore, it is necessary to develop studies aimed at the creation of a specific nursing care model for people with hospitalized DM that guide the nursing actions in the hospital environment.

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