

Nursing care in the management of diabetes mellitus in primary health care

Assistência de enfermagem no manejo do diabetes mellitus na atenção primária em saúde

Cuidados de enfermería en el manejo de la diabetes mellitus en la atención primaria de salud

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RESUMO

Objetivo: O presente estudo tem como objetivo identificar através da literatura as principais atribuições do enfermeiro no manejo do Diabetes Mellitus no âmbito da Atenção Primária. **Método:** Revisão bibliográfica integrativa com abordagem qualitativa na qual foi utilizado um corte temporal de cinco anos de 2017 a setembro de 2022, com pesquisa nas bases de dados Biblioteca virtual em saúde (BVS), Literatura Latino-Americana e do Caribe em ciências da saúde (LILACS), Scientific Electronic Library Online (SciELO) e ProQuest. **Resultados:** Notou-se que com o aumento da prevalência de comorbidades e das complicações advindas da Diabetes Mellitus, o enfermeiro possui um papel primordial no cuidado com o paciente diabético na Atenção Primária, contribuindo assim para melhora na qualidade de vida e na redução das complicações. **Conclusão:** A pesquisa evidenciou que o enfermeiro exerce muito mais que a função de cuidar. Ele atua diretamente na educação em saúde da população, por meio da prevenção e promoção. Todas as orientações são simples, todavia são essenciais para o sucesso do tratamento e a melhora da qualidade de vida dos pacientes, evitando que esse distúrbio metabólico possa evoluir para um estágio mais grave.

Descritores: Assistência; Atenção Primária; Diabetes; Enfermagem; Tratamento.

ABSTRACT

Objective: The present study aims to identify, through the literature, the main duties of nurses in the management of Diabetes Mellitus in the scope of Primary Care. **Method:** Integrative bibliographic review with a qualitative approach in which a time cut of five years from 2017 to September 2022 was used, with research in the Virtual Health Library (VHL) databases, Latin American and Caribbean Literature on health sciences (LILACS), Scientific Electronic Library Online (SciELO) and ProQuest. **Results:** It was noted that with the increase in the prevalence of comorbidities and complications arising from Diabetes Mellitus, nurses play a key role in caring for diabetic patients in Primary Care, thus contributing to improving quality of life and reducing complications. **Conclusion:** The research showed that the nurse performs much more than the role of caring. It works directly in the health education of the population, through prevention and promotion. All the guidelines are simple; however, they are essential for the success of the treatment and the improvement of the patients' quality of life, preventing this metabolic disorder from evolving to a more serious stage.

Descriptors: Assistance; Primary Attention; Diabetes; Nursing; Treatment.

RESUMEN

Objetivo: El presente estudio tiene como objetivo identificar a través de la literatura las principales funciones de los enfermeros en el manejo de la Diabetes Mellitus en el ámbito de la Atención Primaria. **Método:** Revisión integrativa de la literatura con enfoque cualitativo, en la que se utilizó un corte de tiempo de cinco años de 2017 a septiembre de 2022, con una búsqueda en las bases de datos de la Biblioteca Virtual en Salud (BVS), Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS), Scientific Electronic Library Online (SciELO) y ProQuest. **Resultados:** Se constató que con el aumento de la prevalencia de comorbidades y complicaciones derivadas de la Diabetes Mellitus, las enfermeras juegan un papel fundamental en el cuidado de los pacientes diabéticos en Atención Primaria, contribuyendo así a mejorar la calidad de vida y disminuir las complicaciones. **Conclusión:** La investigación mostró que el enfermero desempeña mucho más que el rol de cuidar. Actúa directamente en la educación sanitaria de la población, a través de la prevención y la promoción. Todas las pautas son sencillas, sin embargo son fundamentales para el éxito del tratamiento y la mejora de la calidad de vida de los pacientes, evitando que este trastorno metabólico evolucione a un estadio más grave.

Descritores: Asistencia; Atención Primaria; Diabetes; Enfermería; Tratamiento.

Introduction

Diabetes Mellitus (DM) is one of the main chronic diseases (CD) in the world, being responsible for high mortality rates over the last decades. DM associated with other chronic pathologies was responsible for more than 50% of deaths worldwide in 2014, evidencing a serious public health problem. Also according to the authors, the increase in the statistical number of people with CD is due to increased life expectancy, less healthy lifestyle habits, in addition to the development of new diagnostic methods.¹

DM is responsible for generating macrovascular and/or microvascular changes, which will cause delay in glycemic control through metabolic changes. The disease affects people regardless of social and/or economic factors, this pathology is associated with genetic predisposition, weight gain, high blood pressure, smoking, lack of physical exercise, inadequate diet, among others.²

People with DM are more likely to have complications and hospital readmission. Readmissions generate a high financial cost, and the lack of specialized care is the main reason for this. Care in cases of DM should be provided by qualified nurses who know how to identify the main weaknesses in order to avoid more serious complications.³

By observing the severity of the disease, the nurse, as a professional with technical and scientific knowledge, will be able to put care into practice in order to pay attention to basic needs, provide relevant guidelines, carry out health promotion and offer treatment according to the needs of each patient.⁴

To achieve success in the treatment, the diabetic patient needs guidance, that is, health education. This education must be carried out by trained professionals with technical knowledge, who need to be sensitive to listen and transmit information, in addition to creating an appropriate environment that encourages learning. It is fundamental that the diabetic is able to understand his role as a protagonist within the treatment, above all, that he reaches a higher level of knowledge about his health status and its therapy.⁵

According to the National Primary Care Policy (PNAB), primary care is characterized as a combination of health activities, in the individual and collective context, which includes health promotion, disease prevention, diagnosis, therapy, rehabilitation, health maintenance in order to develop greater individual independence in the people assisted and consequently improve health in the collective aspect. Primary care is the gateway to the SUS, which is why it is developed in a democratic and participatory way, where teamwork is carried out, carefully establishing the demands of the community, seeking the main weaknesses and vulnerabilities.⁶

The PNAB also establishes the specific functions of nurses who work in primary care: providing care at all stages of human development; health care for individuals and the community registered in the teams; home, school and other community spaces if necessary/indicated. Nurses need to carry out nursing consultations, prescribe medications, request additional tests and refer users to other

services if necessary, using the protocols and technical regulations established by the federal, state, municipal and district manager, always aiming to respect the legal provisions of the profession. Planning, evaluating, managing and carrying out continuing education activities with the nursing team and other health groups are also competent actions for nurses.⁶

In primary care, nursing should carry out planning aimed at health education, that is, helping the individual to better deal with his comorbidity, reinforcing the transmission of knowledge about the subject, emphasizing the main risk factors and stimulating autonomy so that they become the main responsible for their care. Therefore, nursing care at this point will help to identify vulnerabilities and thus contribute to healthier habits such as a balanced diet and physical exercise.⁷

In order for the diabetic patient to have a better quality of life and the occurrence of complications to be reduced, educational interventions are necessary through health professionals, with nurses being one of the most capable of this function. Given this, this article aims to identify in the literature the main duties of nurses in the management of Diabetes mellitus in the context of primary health care.

Method

This is an integrative literature review research with a qualitative approach, in which a time frame of five years from 2017 to September 2022 was used. In the retrospective search, publications in Portuguese, Spanish and English were included, and the searches were carried out in electronic databases: Virtual Health Library (BVS), Latin American and Caribbean Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SciELO) and ProQuest.

The combination of the following Boolean descriptors in Health Sciences DeCS was investigated: Nursing "and" diabetes "and" primary care; Diabetes "and" nursing "and" primary care; Nursing "and" diabetes "and" treatment; Primary care "and" nursing "and" diabetes; Nursing "and" care "and" diabetes "and" primary care.

Figure 1 – Article exclusion flowchart.. 2022.

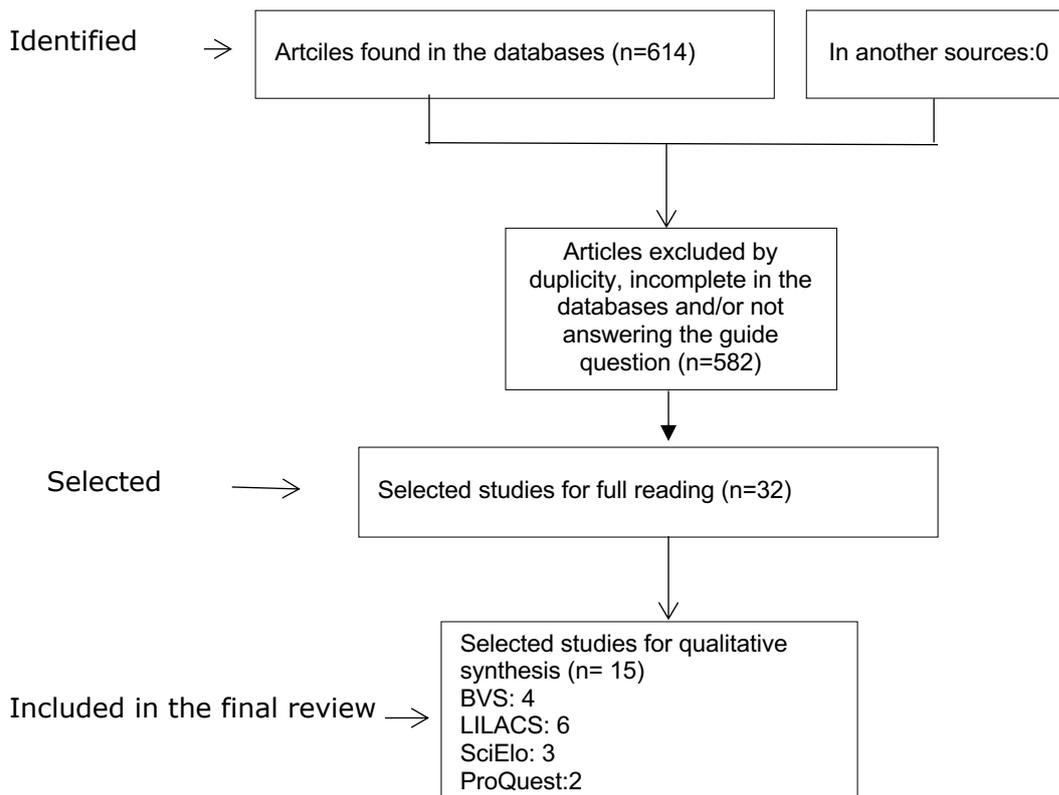


Table 1 – Analysis of data from studies on DM in Primary Health Care.

Place	Database / Periodicals	Articles Authors/ Year	Objective	Sample	Outline
Brazil	Lilacs/ Rev. enferm	Trombini et al., 2021	To know the foot care practices carried out by users with Diabetes Mellitus treated at a Family Health Unit.	12	Descriptive with a qualitative approach
Brazil	Lilacs/ Rev. Esc Enferm	Lira et al., 2021	To analyze the factors associated with the risk of diabetic foot in people with Diabetes Mellitus assisted in Primary Care.	322	Observational, analytical and transversal
Brazil	Lilacs/ REBEn	Lima et al., 2017	Characterize the user profile at risk of developing type 2 diabetes mellitus according to sociodemographic and clinical variables.	266	Cross-sectional, descriptive with a quantitative approach
Brazil	Lilacs/ REBEn	Suplici et al., 2021	To verify adherence to self-care activities among people with diabetes mellitus and its association with the quality of care received in Primary Care.	329	Transversal
Brazil	Lilacs/ Cienc Cuid Saude	Souza et al., 2020	To report the experience of nursing students in carrying out consultations for people with diabetes, at home and in the office, in the context of Primary Health Care.	-	Case report
Brazil	ProQuest/ REBEn	Andrade et al., 2021	To analyze the knowledge and practices of Primary Health Care professionals on diabetic neuropathy, through their social presentations.	31	Descriptive Qualitative

Brazil	ProQuest/ REBEn	Teston et al., 2017	To verify the effect of the nursing consultation on the cardiometabolic profile of people with Type 2 Diabetes Mellitus.	134	Randomized
Brazil	SciElo/Rev. esc. enferm. USP	Cunha et al., 2020	To analyze the stages of insulin therapy practice performed by people with DM accompanied in primary health care.	150	Cross-sectional, descriptive and quantitative study
Brazil	SciElo/ REBEn	Teston et al., 2018	Grasp the perspective of nurses on health education in the care process for people with Diabetes Mellitus in Primary Care.	13	Descriptive, qualitative study
Brazil	Lilacs/ Ciênc. cuid. saúde	Xavier et al., 2020	To describe the strategies used by nurses to promote the safety of diabetic users in the Family Health Strategy.	4	Qualitative transversal
Brazil	BVS/REME	Lira et al., 2020	Assess the risk of ulceration in the feet of people with diabetes mellitus treated in primary care.	308	Analytical cross- sectional study
Brazil	BVS/REUO L	Santos et al., 2019	To analyze the guidelines of nurses from Family Health Units to elderly people with Diabetes Mellitus in the prevention of skin lesions.	7	This is a qualitative, descriptive and exploratory study.
Brazil	BVS/REUFS M	Zanatta et al., 2020	To analyze drug interactions and the epidemiological profile of individuals with diabetes mellitus (DM).	42	Quantitative study
Brazil	BVS/Cienc Cuid Saúde	Moreschi et al., 2018	Identify the actions developed by the Family Health Strategies to improve the quality of life of people with diabetes.	14	Qualitative study
Brazil	SciELO/Ciênc. Saúde Coletiva	Borba et al., 2019	Evaluate knowledge about diabetes, attitude towards self-care and associated factors in elderly people assisted in primary health care.	202	Randomized Cross- sectional Study

Discussion

Diabetic patients, especially at an older age, are more likely to develop skin lesions. Therefore, it is essential that health professionals are able to provide quality assistance to this target audience; primary care being the most appropriate place to avoid the aggravations of this metabolic syndrome. Nurses from the Family Health Strategy (ESF) need to advise on skin care, self-care, carry out nursing consultations, involve the patient's family and promote better quality of life.⁸

The Systematization of Nursing Care (SAE) within the context of primary care can be implemented through the nursing consultation. Through practical and scientific knowledge, nurses can promote health, especially when dealing with patients with chronic pathologies. The FHS nurse is able to track the target population and set goals with diabetic patients to achieve a better quality of life. The study also emphasizes that no care should be neglected, and the nurse needs to

have a holistic look at each case, in addition to understanding the individual needs of each patient.⁹

Health education has a great influence with the improvement of the clinical condition of the diabetic patient, the research showed positive results in patients who were monitored in primary care (PHC). Still according to the authors, team training is necessary so that everyone is able to carry out health promotion within the context and reality of PHC¹⁰.

There are several factors that contribute to the development of type 2 DM, which are: overweight, physical inactivity and altered blood glucose. According to these findings, it is highlighted the importance of nurses being able to identify people who are at risk for DM2, and thus contribute to the development of strategies that can positively impact the life of the health user, contributions such as: changes in habits, encourage knowledge about the pathology, encourage the practice of physical activities and weight control.¹¹

In view of this, adherence to self-care activities of people with DM was verified, where it is emphasized that health professionals who have better care assistance, agenda organization and availability of materials and supplies obtained better results, generating greater adherence to glycemic monitoring, use of medication and healthy diet. This directly reflects on the work of the nursing team, since encouraging self-care in Primary Care shows quality in the services provided, with organizational and clinical relevance for the entire health team.¹²

Elderly patients aged between 60 and 69 years, who live alone and have low education, tend to have more difficulty in performing self-care, especially when they have a low level of understanding of therapeutic procedures, when they do not implement healthy habits and when they lack knowledge about the problem. It is also evidenced that the attitude towards self-care decreases with the longer time of diagnosis, because it is a chronic disease that generates complications, the motivation for self-care becomes smaller. It is appropriate for the primary care nurse to also consider the psycho-emotional factors of all patients, however, to pay special attention to the elderly, since they live with sadness, guilt and fear due to the diagnosis of the disease. By stimulating autonomy for self-care, it becomes more understandable for the elderly to overcome such difficulties and, consequently, improve glycemic control.¹³

Regarding Nursing Consultations and Home Visits, these environments proved to be ideal for providing comprehensive and holistic care, promoting a greater bond between the professional and the user. And by knowing the patient's social/family environment, it was possible to obtain more knowledge about the reality experienced. When relating the main weaknesses found in both environments, physical inactivity, incorrect use of medication and inadequate nutrition were factors that constituted the greatest difficulty in the treatment of people with DM.¹⁴

Therefore, the importance of complementary Nursing Intervention is reported, through the active search via telephone

contact with the patient, a measure that resulted in greater adherence to self-care, clarification of doubts and raising expectations for the next consultations. In the same study, it was interspersed with the Nursing Consultations where blood pressure, capillary blood glucose were measured, and a folder was delivered containing information about allowed and not recommended foods, about complications of the disease and the importance of physical activity. It was observed that interventions like this require planning, but it proved to be a great work tool, since it generates a better quality of life for the patient, encourages self-care, in addition to qualifying the work of the nurse.¹⁵

The study showed that most patients treated at basic health units had some difficulties in performing insulin therapy. The same study identified inappropriate practices regarding the handling of needles and syringes, insulin storage and vial homogenization. The authors emphasize the importance of the professional nurse in health education, as well as in carrying out procedures related to the application of insulin and thus ensuring a more appropriate treatment, avoiding the application of wrong doses and the appearance of skin lesions.¹⁶

Medication is essential for controlling and improving the quality of life of diabetic patients, especially type 2. In the research, the authors focus on drug interactions and how nurses at the Family Health Center should be alert to always provide information correct. It is in the nursing consultation that doubts must be resolved and thus, the diabetic patient can feel safer and increase adherence to self-care. Still according to the authors, the epidemiological profile of patients with type 2 DM tends to be people of more advanced age, and this is a factor that nurses need to take into account, because they are patients who most require more patient communication, and that it is simpler and more objective.¹⁷

Communication between patients and nurses in PHC is a crucial point to achieve better results. Through the nursing consultation, the nurse must pay attention to a simpler and clearer language, in this way it is easier to establish a relationship of trust between professionals and diabetic patients. It is essential that nursing can advise on the triad composed of physical exercise, food and medication, because these are processes that influence the success of glycemic control and other cardiovascular pathologies.¹⁸

The practices and knowledge of Primary Health Care professionals focused on Diabetic Neuropathy are essential to reduce complications. In the study, it is highlighted that professionals with their skills and competence bring interventions such as triage, consultations, prescriptions, referrals, home visits, etc. In addition, emotional support to the patient and active listening are factors that strengthen the bond, communication and trust. Thus, it is up to the professional to intervene on the challenges of illness and, it is necessary to consider the biopsychosocial context of the patient, thus contributing to the therapeutic process of the same.¹⁹

It is common for people with DM to have drier skin due to greater fluid loss, so in the management of diabetes in primary care, the nurse

must always observe the signs and symptoms related to the diabetic foot²⁰. Therefore, for the role of nurses, it is essential to have health education, since these professionals must provide the necessary care to prevent injuries to the feet of patients with DM. professionals have difficulties in giving more precise guidelines, being done superficially with simple general guidelines, not worrying about the prevention of complications.²¹

Thus, it is clear that care for people with DM continues to be fragmented and performed incorrectly by health professionals, which is a factor associated with a greater risk of developing lesions in the diabetic foot. Therefore, in this same study, the importance of the nurse in providing care was evidenced, such as: carrying out the clinical examination of the feet as a routine, encouraging self-care through educational activities and tracking the diabetic foot, in addition to contributing to the reduction of injuries in the context of primary care.²²

Conclusion

It is known that prevention is the best way to avoid complications in relation to any disease and/or health problem. Therefore, the research showed that the nurse performs much more than the function of caring. It acts directly in the health education of the population, through prevention and promotion.

Regarding the problem of the article, it is clear how important the performance of the primary care nurse is for DM control, since the success of the treatment is related to the patients' way of life. So, through the nursing assessment, the nurse is able to reduce the risks of worsening the pathology through guidance on self-care, glycemic control, routine monitoring of the clinical status, keeping the skin hydrated, the proper use of insulin and the stimulation of practice physical activities, among others.

All guidelines are simple, however essential for the success of the treatment and the improvement of the patients' quality of life, preventing this metabolic disorder from evolving into a more serious stage. And through nursing, patients can adapt their daily lives to the chronic condition of the disease and develop autonomous habits and a healthy lifestyle.

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