DOI: https://doi.org/10.36489/saudecoletiva.2021v11i61p4808-4817

The delicacy of a touch: taking care of the diabetic foot

La insostenible ligereza del tacto: reconocimiento del cuidado del pie diabético

A insustentável leveza do toque: reconhecimento do cuidado ao pé diabético

ABSTRACT
Diabetes mellitus is a public health issue, in which taking care of the feet is essential, in order to reduce the micro and macro vascular complications. Objective: This study aims to talk about the importance of examining diabetic feet to prevent bad outcomes and of health education increasing the self-care routine, through the Family Practice medical residents' experience. Method: It is an observational, descriptive and transversal report. Result: Even without enough resources, it was possible to restore not only the skins but these patients' souls. The longitudinality as one of the characteristics of the Primary Health Care provided an improvement in the access and also in the quality of life quality. Conclusion: The health education in these cases contributes to avoid damage in chronic diseases, and the patient and the professionals' expectations make the follow-up challenging.
DESCRIPTORS: Primary Health Care; Diabetic Foot; Health Education.

RESUMEN
La diabetes mellitus es un problema de salud pública, donde el cuidado de los pies es fundamental para reducir las complicaciones vasculares. Objetivo: Tiene como objetivo abordar la importancia del pie diabético en la prevención de complicaciones y la educación para la salud en la potenciación del autocuidado, a partir de la experiencia de los residentes en Medicina Familiar y Comunitaria. Método: Se trata de un estudio observacional, descriptivo y transversal. Resultado: Incluso con recursos escasos, la piel y el alma de estas personas se puede recuperar a través de la longitudinalidad como una de las características de la Atención Primaria de Salud, permitiendo un mejor acceso a los usuarios y su calidad de vida. Conclusión: La educación sanitaria para personas con pie diabético contribuye a reducir los problemas de salud. Las expectativas de los profesionales y los pacientes con enfermedades crónicas hacen que la atención sea un desafío.
DESCRIPTORES: Atención Primaria de Salud; Pie Diabético; Educación en Salud.

RESUMO
Diabetes mellitus é um problema de saúde pública, onde o cuidado com o pé é essencial, a fim de reduzir as complicações macro e microvasculares. Objetivo: Visa abordar a importância da avaliação dos pés diabéticos na prevenção de complicações e da educação em saúde na potencialização do autocuidado, a partir da vivência de residentes em Medicina de Família e Comunidade. Método: Trata-se de um estudo observacional, descritivo e transversal. Resultado: Mesmo com recursos escassos, pode-se restaurar peles e almas de pessoas que não possuíam autocuidado ou que não procuravam assistência à saúde. A longitudinalidade como uma das características da Atenção Primária à Saúde permitiu uma melhora do acesso aos usuários e de sua qualidade de vida. Conclusão: A educação em saúde dos portadores de pé diabético contribui significativamente para diminuição de agravos. As expectativas dos profissionais e dos pacientes com doenças crônicas tornam o cuidado desafiador.
DESCRITORES: Atenção Primária à Saúde; Pé Diabético; Educação em Saúde.

RECEIVED ON: 11/27/2020 **APPROVED ON:** 12/03/2020

Denise Mota Araripe Pereira Fernandes
Master's student in Family Health at FACENE, family and community doctor, teacher and tutor at the Faculty of Medical Sciences of Paraíba/PB).
ORCID: 0000-0001-7804-882X

Vilma Felipe Costa de Melo
PhD. Psychologist. Advisor and professor of the Master's in Family Health by FACENE
ORCID: 0000-0001-5721-3240

Lana Muriely Borges de Assis
Resident in Family and Community Medicine (MFC) at the João Pessoa Municipal Health Secretariat - SMS/JP in partnership with the Faculty of Medical Sciences of Paraíba (FCM-PB). Graduated in medicine from the Faculty of Medicine Nova Esperança (FAMENE).
ORCID: 0000-0002-9460-9444

Marina de Lima Pinheiro
Resident in Family and Community Medicine (MFC) at the João Pessoa Municipal Health Secretariat - SMS/JP in partnership with the Faculty of Medical Sciences of Paraíba (FCM-PB). Graduated in medicine from the Federal University of Paraíba (UFPB).
ORCID: 0000-0001-9566-7366

Melissa Maria Medeiros de Morais
Resident in Family and Community Medicine (MFC) at the João Pessoa Municipal Health Secretariat - SMS/JP in partnership with the Faculty of Medical Sciences of Paraíba (FCM-PB). Graduated in Medicine from the Federal University of Paraíba (UFPB).
ORCID: 0000-0003-2336-3907

Maria Clara de Araujo Remigio Batista
Medical student at Unipê
ORCID: 0000-0002-5345-890X

INTRODUCTION

The experience of falling ill has a unique impact on the person's life. It can be strong and transformative, it can be painful and disabling. The fact is that we will never meet two equal patients, each man gets sick in his own way. In this context, Diabetes mellitus (DM2), it is understood as a public health problem, it is seen as a disease that affects the subject, his family and the community. Type 2 diabetes is the most common, accounting for 90% of cases and is described as a "silent killer". In general, it is difficult to determine its exact onset, however many families may be prone to insulin resistance. Up to one-third to half of people may not be diagnosed. [1]

Associated with higher rates of hospitalizations and physical disability due to macro and microvascular complications, DM2 it is one of the diseases that makes the greatest use of health services, implying an overload on the health systems of all countries, regardless of their economic development. The patients are sometimes unmotivated and harbor conflicting feelings of hopelessness regarding current and future health. [2]

The most important objectives of health actions in DM2 they are to control glycemia, reduce morbidity and mortality due to cardiovascular complications and improve quality of life, empowering and motivating patients to perform self-care. Compensation for the disease results from the sum of several factors and conditions that provide follow-up for these patients. Thus, a systematic, loving, empathetic and permanent educational intervention is essential to change current practices. [3, 4]

The most important objectives of health actions in DM2 they are to control glycemia, reduce morbidity and mortality due to cardiovascular complications and improve quality of life, empowering and motivating patients to perform self-care.

Identifying risk factors, signs of target organ damage, symptoms of hyper or hypoglycemia as patients perceive their disease and how they adhere to treatment directly influence home blood glucose monitoring. [5] Even diabetic patients having knowledge about these topics, studies show that items related to treatment, such as lifestyle and dietary changes, and family support need a greater increase in education. [6]

Although there are many serious and costly complications that affect individuals with diabetes, such as heart disease, kidney problems and blindness, foot complications account for the bulk: 40 to 70% of all lower extremity amputations are related to diabetes mellitus, approximately 85% of all diabetic amputations were preceded by foot ulcers. [7]

Foot care is essential to reduce the number of cases affected by neuropathy and loss of tactile, thermal and painful peripheral sensitivity that can determine complex lesions that, when left untreated, can progress with limb amputation. Diabetic foot is considered to be the result of infection, ulceration and/or destruction of deep tissues, associated with lower limb involvement due to different degrees of peripheral vascular disease and neurological abnormalities. It has the ability to reduce the quality of life of the diabetic, due to the possible amputation of the affected limb, being considered a common cause of disability. [8]

In the context of enhancing care, an accessible tool to practice in Primary Health Care (PHC) is the Ankle-Brachial Index (ABI), an important method in the propaedeutics of Peripheral Obstructive Arterial Disease (PAD), for the prognosis of outcomes and related mortality to the cardiovascular system. 9 It is initially verified by palpation of the pulses of the lower limbs (posterior and pedial tibial arteries) and brachial pulses in the upper limbs. Then, the systolic blood pressure (SBP) of these sites is measured with a sphygmomanometer and portable Doppler. The highest SBP value found between the posterior and pedial tibial arteries is chosen and divided by the brachial artery, bilaterally. [10]

PHC inserted in a context of decentralization and hierarchy of actions, gains a prominent role in the care of diabetic feet. The Family Health Strategy (FHS), the way to instill PHC in the Unified Health System (SUS) is configured as a tool in the reorganization of the system. It is configured as a monitoring model with performance in the integrality and effectiveness in the territories and in the offer of services, aiming at actions of promotion, protection and recovery of health, and must incorporate the most diverse facets of the complex of the Brazilian epidemiological framework. [11]

The continuous improvement of PHC is able to obtain positive results in relation to treatment adherence and the population's satisfaction with the proposed treatments. Studies have shown evidence that the fulfillment of the attributes of PHC services is associated with fewer hospitalizations, fewer consultations for the same problem, fewer complementary tests and more preventive actions. [12]

The quality of care provided, measured by the results in the population's health and the reduction of health inequities, is yet another goal to be pursued. We also deal with gaps, ranging from infrastructure, through work processes, which enable the principles of access, coordination, longitudinality and comprehensiveness, which compromise the quality of care and the perception of the user. Such barriers, in addition to being systematic and relevant, are also preventable, unfair and unnecessary, and should be reduced. [12]

In view of the numerous cases of diabetics with vascular complications seen daily, the need arose to address and reinforce the importance of evaluating diabetic feet, in order to identify microvascular and macrovascular complications early. In addition, bringing health education to the fore as a device to strengthen self-efficacy and motivation for self-care, based on the experience of residents in Family and Community Medicine (Medicina de Família e Comunidade - MFC) in their daily practice.

METHODS

This is an observational, descriptive and cross-sectional study, in the form of an experience report. In this study, three MFC residents, together with the responsible tutor, reflect on their experiences in the daily care of diabetic patients, regarding the role of longitudinality as a powerful tool in the care of patients with DM, especially in the assessment of diabetic foot.

The work was built from the set of residents' experiences in supporting this population. One is in the first year of residence and two in the second, and are linked to two FHS teams from the Family Health Unit (USF) Saúde e Vida Integrada, with approximately 9000 registered users, located in the city of João Pessoa (PB). The exploration of knowledge and the exchange of experiences, during the follow-up of cases, took place in monthly meetings from March to September 2020.

During spontaneous demand consultations, residents assessed wounds, blood glucose and underwent a general physical examination to identify factors that were hindering the expected results, such as poor hygiene, inadequate shoes, foot condition, sensitivity and the evaluation of the Ankle Brachial Index (ABI).

As this is an experience report by the authors of this study, there was no need to submit it to the Research Ethics Committee.

RESULTS

A common factor in the residents' daily lives was the preponderance of patients with DM2 affected by micro or macrovascular complications identified in the first consultation. Sometimes, the feeling of defeat broke out, since the problems in question are preventable with simple and feasible tactics.

The work with a multidisciplinary team was essential to accompany these patients, adding strength to provide expanded care, with emphasis on nursing, nursing techniques, psychology, pharmacy and nutrition.

Over the months, with the implementation of guidelines, during the medical consultation, regarding the importance of self-care and basic measures to assess foot involvement, a significant change in the behavior of the diabetics evaluated was noted. Where previously there were difficulties in understanding the disease process, after some consultations, greater discernment was observed

regarding this, with the ability to provide self-care.

Even with a reality of scarce resources at UBS, it is possible to restore the skins and even the souls of people who did not have self-care or who did not seek health care with the minimum. Longitudinality as one of the characteristics of PHC allowed an improvement in access to users and, consequently, in their quality of life.

From these experiences, the physical examination of the foot as well as the assessment of the ABI became routine in the care of diabetics. In addition, updates on wound care and equipment were discussed with preceptorship to better empower MFC residents. In the end, there was a greater independence of diabetics after the beginning of intensified care.

DISCUSSION

Brazil has undergone major changes, in recent years, in the structure of SUS. The Family Health Program (Programa Saúde da Família - PSF), for example, later expanded to the ESF, was developed with the aim of improving access to PHC and its quality throughout the country. Its structuring character of municipal health systems has caused an important movement in order to reorder the model of care in SUS. [13]

However, even in the face of implemented reforms, the incidence of DM2 is on the rise, associated with a high economic and social cost. The change in this situation necessarily involves the organization and incentive of AB, which have been shown to be less expensive, guaranteeing the diagnosis and access to different treatments, and allows the implementation of measures that delay the onset of the disease or avoid its complications. [14] Thus, it is essential to link the diabetic patient to the family health units. [15]

Treatment should assess the factors and individuality of each individual, depending on the case and the glycemic targets. [16] Euglycemia presents itself as an obstacle to the effective care of diabetics, with the empowerment of them a primary function to achieve better control of their disease. [17] A strategy that includes prevention, professional and patient education, multifactorial treatment of ulceration and strict monitoring can reduce amputation rates by 49 to 85%. [5]

Knowledge of pathology has a predominant action in enhancing self-care, since each patient is a universe and experience in different ways the process of illness.

A amputação de um membro, decorrente de uma doença de início insidioso com potencial avassalador, em uma pessoa ativa e sem deformidades gera impactos psicológicos importantes - como depressão, isolamento social e redução da autoestima - tendo de se adaptar a uma condição que lhe foi imposta e lidar com os julgamentos próprios e alheios. [18]

As for the BA team, it is necessary to identify and treat pre-ulcerative lesions and low-risk deformities, in addition to looking for everyday factors that may influence future complications. [19] In relation to treatment, the aim is to leave the wound clean, moist and covered to facilitate the healing process, for this, it is crucial to observe and differentiate the presence of viable and non-viable tissues (for possible debridement) and to change the dressings daily , guiding the patient and the caregiver about the technique. [20]

The procedures performed in PHC include removal of corns, fissures, nail cuts (in the case of nail changes, the need for canthroplasty must be assessed), treatment of onychomycosis and neuro-ischemic injuries, periodic evaluation of the most at risk foot and decreased plantar sensitivity, management of uncomplicated ulcers. [20]

Health education in the self-care of diabetic foot carriers contributes significantly to the reduction of injuries, including daily inspection of the feet, hygiene, hydration, drying of the interdigital spaces and the encouragement to wear appropriate shoes with thorough examination when placing them. [21]

CONCLUSION

The expectations arising from professionals regarding damage control in patients with chronic diseases often make care challenging, especially when added to the ideals of patients.

Knowledge of pathology has a predominant action in enhancing self-care, since each patient is a universe and experience in different ways the process of illness.

As it is a frequent and potentially serious complication, but preventable, the diabetic foot should be part of the routine of monitoring patients with DM2, since PHC is able to act effectively in its treatment and prevention. ■

REFERENCES

1.International Diabetes Federation. IDF DIABETES ATLAS, 9th edn. Brussels, Belgium: 2019. [cited 2020 Nov 26]. Available from: https://www.diabetesatlas.org/en/

2.Sociedade Brasileira de Diabetes. Diretrizes Sociedade Brasileira de Diabetes 2017-2018. São Paulo: 2017. [cited 2020 Nov 26]. Available from: https://www.diabetes.org.br/profissionais/images/2017/diretrizes/diretrizes-sbd-2017-2018.pdf

3.Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Estratégias para o cuidado da pessoa com doença crônica: diabetes mellitus / Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. – Brasília: Ministério da Saúde, 2013.

4.Araujo LM, Britto MM, Cruz TR. Tratamento do diabetes mellitus do tipo 2: novas opções. Arq Bras Endocrinol Metab, São Paulo, v. 44, n. 6, p. 509-518, Dec. 2000. Available from: <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-27302000000600011&lng=en&nrm=iso>. access on 27 Jan. 2020. http://dx.doi.org/10.1590/S0004-27302000000600011.

5.Oliveira LL, Lima GF, Nunes TS, Moura TA, Tanajura DM. Atitudes e comportamentos dos diabéticos acerca das estratégias de prevenção e controle clínico do diabetes/Attitudes and behaviors of diabetics about the diabetes clinical prevention and control strategies. Rev Med (São Paulo). 2019 jan.-fev.;98(1):16-22. Available from: https://www.revistas.usp.br/revistadc/article/view/148752

6. Chagas IA, Camilo J, Santos MA, Rodrigues FF, Arrelias CC, Teixeira CR et al. Conhecimento de pacientes com diabetes sobre tratamento apos cinco anos do término de um programa educativo. Rev. esc. enferm. USP [Internet]. 2013 [cited 2020 Nov 26]; 47(5): 1137-42. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342013000501137

7. Secretaria de Estado de Saúde do Distrito Federal. Consenso Internacional sobre pé diabético. Brasília: Imprensa Oficial; 1999. Available from: http://189.28.128.100/dab/docs/publicacoes/geral/conce_inter_pediabetico.pdf

8. Sampaio LF, Mendonça CS, Turci MA. Atenção primária à saúde no Brasil. In: Gusso G, Lopes JM, Dias LC. Tratado de Medicina da Família e Comunidade. 2. ed. Porto Alegre: Editora Artmed; 2019. v.1, p 273.

9. Kawamura T. Índice Tornozelo-Braquial (ITB) determinado por esfigmomanômetros oscilatórios automáticos. Arq Bras Cardiol. 2008 [11 jun 2020]; Available from: https://www.scielo.br/scielo.php?pid=S0066-782X2008000500003&script=sci_abstract&tlng=pt

10. Dimarzio G, Yoshida RA. Doença Arterial Periférica. In: Gusso G, Lopes JMC, Dias LC. Tratado de Medicina de Família e Comunidade. 2. ed. Porto Alegre: Editora Artmed; 2019. v.1, p 4194-4219.

11. Ministério da Saúde (BR), Secretaria de Assistência à Saúde. Saúde da Família: uma estratégia para reorganização do modelo assistencial. Brasília (DF), 1997. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/cd09_16.pdf

12. Cubas MR, Santos OM, Retzlaff EM, Telma HL, Andrade IP, Moser AD, et al. Pé diabético: orientações e conhecimento sobre cuidados preventivos. FisioterMov. [Internet]. 2013 [cited 2020 Nov 26];26(3):647-655. Available from: https://www.scielo.br/pdf/fm/v26n3/a19v26n3.pdf

13. Alfradique ME, Bonolo PF, Dourado I, Lima-Costa MF, Macinko J, Mendonça, CS, et al. Internações por condições sensíveis à atenção primária: a construção da lista brasileira como ferramenta para medir o desempenho do sistema de saúde (Projeto ICSAP – Brasil). Cad Saúde Pública. [Internet] 2009 [cited 2020 Nov 26];25(6):1337-49. Available from: http://dx.doi.org/10.1590/S0102-311X2009000600016

14. Guidoni CM, Oliveira CM, Freitas O, Pereira LR. Assistência ao diabetes no Sistema Único de Saúde: análise do modelo atual. Braz-JPharmSci. [Internet] 2009 [cited 2020 Nov 26];45(1): 37-48. Available from: http://www.scielo.br/pdf/bjps/v45n1/05.pdf

15. MINISTÉRIO DA SAÚDE (BR), Secretaria de Vigilância em Saúde. A vigilância, o controle e a prevenção das doenças crônicas não-transmissíveis: DCNT no contexto do Sistema Único de Saúde brasileiro. Brasília (DF); 2005. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/DCNT.pdf

16. Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes-2019. Diabetes Care [Internet] 2019[cited 2020 Nov 26];42(Suppl.1): S90-S102. Available from: https://doi.org/10.2337/dc19-S009

17. Santos MM, Peters AA, Figueiredo MA, Carreiro MA, Magalhães MC, Araújo EP. Controle glicêmico, suporte social percebido e o autocuidado de indivíduos com diabetes tipo 2. SaudColetiv. [Internet]. 2020 [cited 2020 Nov 26];10(55):2815-2822. Available from: https://doi.org/10.36489/saudecoletiva.2020v10i55p2815-2830

18. Silva FM, Viana MC, Barreto JO, Sousa NM, Penha AA. Síntese de evidências para políticas de saúde: prevenção e controle do pé diabético na atenção primária à saúde. Bis, São Paulo, v. 20, n.2, p.77-88, dez. 2019. Available from: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1022213

19. Nascimento MT, Silva NI, Brito FC, Fontes FL, Oliveira AF, Oliveira JV, et al. Fatores de risco associados ao desenvolvimento do pé diabético e ações executadas na Atenção Primária à Saúde para prevenção do agravo. REAS [Internet]. 2019 [cited 2020 Nov 26];(33):e1371. Available from: https://acervomais.com.br/index.php/saude/article/view/1371

20. Ministério da Saúde (BR), Secretaria de Atenção à Saúde. Manual do Pé Diabético: estratégias para o cuidado da pessoa com doença crônica. Brasília, 2016. Available from: http://www.as.saude.ms.gov.br/wp-content/uploads/2016/06/manual_do_pe_diabetico.pdf

21. Mendes RN, Lisboa MS, Lima TP. Atuação do Enfermeiro no Autocuidado com o Paciente com Diabetes Mellitus Tipo II e Pé Diabético. Revista Multidisciplinar e de psicologia [Internet]. 2020 [cited 2020 Nov 26]. Available from: 10.14295/idonline.v14i51.2565.