








Health needs of people with diabetes mellitus for disease management: a scoping review

Necessidades de saúde de pessoas com diabetes mellitus para o gerenciamento da doença: revisão de escopo

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ABSTRACT

Objective: to map the health needs of people with diabetes mellitus for disease management. **Methods:** scoping review according to the JBI guided instead by the guiding question: what are the health needs of people with diabetes for managing their health condition? Health databases and portals were analyzed using the descriptors Diabetes mellitus, Health service needs and demands, Needs assessment, Disease management, and the keyword Health needs. **Results:** the analysis consisted of 26 studies, the majority published in 2019, carried out in Europe, with people with type 2 diabetes and in a hospital setting. Health needs were listed in four thematic categories. **Conclusion:** people with diabetes mellitus have educational, behavioral, supportive, and emotional health needs, and these needs are interconnected, impacting disease management and quality of life. **Contributions to practice:** with our findings, it is possible to guide research in the area, guiding researchers to design educational interventions that can meet the needs presented. In addition, it will also guide professionals in their clinical practice to reflect on the care they provide, helping them to make decisions to direct the planning and execution of care. **Descriptors:** Diabetes Mellitus; Health Services Needs and Demand; Disease Management; Needs Assessment; Nursing.

RESUMO

Objetivo: mapear as necessidades de saúde de pessoas com diabetes mellitus para o gerenciamento da doença. **Métodos:** revisão de escopo segundo o JBI direcionada pela pergunta norteadora: quais as necessidades de saúde de pessoas com diabetes para o gerenciamento de sua condição de saúde? Analisaram-se bases e portais de saúde via busca com os descritores Diabetes mellitus, Necessidades e demandas de serviços de saúde, Avaliação das necessidades, Gerenciamento da doença e a palavra-chave Necessidades de saúde. **Resultados:** a análise foi composta por 26 estudos, sendo a maioria publicada em 2019, realizados na Europa, com pessoas com diabetes tipo 2 e em ambiente hospitalar. As necessidades de saúde foram elencadas em quatro categorias temáticas. **Conclusão:** as pessoas com diabetes mellitus têm necessidades de saúde educacionais, comportamentais, de apoio e emocionais e essas necessidades se interligam, gerando impacto no manejo da doença e na qualidade de vida. **Contribuições para a prática:** com nossos achados, é possível guiar as pesquisas na área, orientando os pesquisadores a traçarem intervenções educativas que possam atender às necessidades apresentadas. Além disso, também orientará os profissionais em sua prática clínica a refletirem sobre o cuidado dispensado, auxiliando a tomada de decisões, para direcionar o planejamento e execução do cuidado. **Descritores:** Diabetes Mellitus; Necessidades e Demandas de Serviços de Saúde; Gerenciamento da Doença; Avaliação das Necessidades; Enfermagem.

Introduction

Diabetes mellitus (DM) is one of the chronic diseases that has long been a major public health problem. The global prevalence of people with DM exceeds 537 million adults living with the disease, with projections for 2045 being an increase to 783 million in the world population, generating an increase in demand for health services⁽¹⁾.

Over the long term, high glycemic values are associated with microvascular and macrovascular complications. Among microvascular complications, the most prevalent are retinopathy, neuropathy, and nephropathy, while stroke, coronary heart disease, and peripheral vascular disease are the most common among macrovascular complications⁽²⁻³⁾. This makes it essential to have glycemic control with individualized goals according to each person's general state of health, to improve their quality of life⁽³⁾.

In addition to the effect on people's quality of life, these complications are also responsible for an increase in the use of health services, since around 50% of the costs over the lifetime of a patient with DM are related to the complications of the disease. Strategies are needed to prevent these serious complications⁽³⁾.

Because it is a complex disease, DM requires a management process in which healthcare needs to be continuous and involve the person, the family, professionals, and services. These practices represent the most different ways of dealing with this chronic condition, in the various circumstances of life and daily life, involving the way the person deals with the disease and everything they do to promote care. These practices seek to articulate the management of the condition calmly and healthily⁽⁴⁾.

Some barriers to managing DM include treatment costs, access to health services, and social and structural factors that limit the adoption of best treatment practices⁽⁵⁾. In this process, needs are likely to arise, as this management includes self-care behaviors such as healthy eating, physical activity, motivation,

medication use, glycemic monitoring, risk reduction, and problem-solving⁽⁶⁾.

We reiterate the importance of studies that identify the health needs of people with DM to formulate healthcare strategies that strengthen the organization of the health system. In addition, it should improve coordination with the community, promoting supported self-care, centered on the person and their sociocultural context⁽⁷⁾.

Despite addressing care needs from the point of view of professionals and family members and even people's experiences, no mapping was found in the literature on the health needs of people with DM for managing their condition⁽⁸⁻⁹⁾. This justifies the present study and shows some of its relevance in the epidemiological context of DM.

Given this, it is essential to know the health needs of people with DM and to compile these findings through a scoping review to have a comprehensive view of the available evidence, subsidizing the formulation of multifocal interventions to improve care for this public. This study aims to map the health needs of people with diabetes mellitus for disease management.

Methods

The scoping review was conducted using the methodological structure proposed by the JBI, which followed the steps: (1) research question, (2) eligibility criteria, (3) search strategy, (4) data extraction, (5) synthesis and presentation of the main findings⁽¹⁰⁾.

The authors followed the recommendations of the Preferred Reporting Items for Systematic and Meta-Analyses - Extension for Scoping Reviews (PRISMA-ScR), according to the JBI Manual⁽¹¹⁾. The study protocol was registered on the Open Science Framework (OSF) platform under DOI number 10.17605/OSF.IO/BGQEM.

The question formulation followed the PCC strategy, whose population was people with diabetes,

whose concept consisted of health needs and the context of diabetes management. The descriptors for the mnemonic were: diabetes mellitus, Health Services Needs and Demand, Needs Assessments, and disease management. It should be noted that the keyword health needs was used in the search because it was the term that best directed the search and answered the question of this review. Thus, the following guiding question was formulated: what are the health needs of people with diabetes mellitus for disease management?

We included studies available in any language, with no time frame, and whose central phenomenon was the health needs of people with DM. Studies whose participants were children, health professionals as central participants, editorials, protocols, and reviews, and which did not include diabetes management were excluded.

The search was guided by the ECUS strategy (extraction, conversion, combination, construction, and use), which presents the step-by-step process for

formulating a sensitive search strategy, to systematize the development of search strategies in a standardized way, with consolidated methods that are widely used for retrieving health information⁽¹²⁾. The stages are shown in Figure 1.

To this end, we used recognized vocabularies, keywords, descriptors, and the like as searched in the health thesaurus, namely Medical Subject Headings (MeSH), Health Sciences Descriptors (DeCS), and Embase Subject Headings (Emtree). Depending on the suitability of each database, the English and Portuguese vocabularies were used, intermediated by the Boolean operators OR and AND. For a sensitive search, it is important to note that the formulation of the search strategy followed the guidelines of a recognized librarian in the field.

In addition, various search strategies were carried out using the final combination signaled in the use stage of the ECUS strategy, according to the specificity of each database (Figure 2).

Objective/ Problem	ECUS strategy		
	P	C	C
Extraction	People with diabetes mellitus	Health needs	Disease Management
Conversion	Diabetes mellitus	"Health Services Needs and Demand" OR "Needs Assessments"	"Clinical management" OR "Disease management" OR "Disease Management"
Combination	"Diabetes Mellitus" AND Adult	"Health needs" OR "Determination of Health Care Needs" OR "Health Service's Needs" OR Needs OR "Educational Needs Assessments" OR "Assessment of Healthcare Needs"	"Diabetes management" OR Self-management OR "Diabetes management" OR Selfcare
Construction	("Diabetes mellitus" AND adult)	("Health Services Needs and Demand" OR "Needs Assessments" OR "Health Needs" OR "Determination of Health Care Needs" OR "Health Service's Needs" OR Needs OR "Educational Needs Assessments" OR "Assessment of Healthcare Needs")	("Disease Management" OR "Diabetes management" OR Self-management OR Self-care)
Use	("Diabetes mellitus" AND adult) AND ("Health Service's Needs and Demand" OR "Needs Assessments" OR "Health needs" OR "Determination of Health Care Needs" OR "Health Service's Needs" OR Needs OR "Educational Needs Assessments" OR "Assessment of Healthcare Needs") AND ("Disease Management" OR "Diabetes management" OR Self-management OR Self-care)		

Figure 1 – ECUS strategy for formulating the search strategy. Fortaleza, CE, Brazil, 2024

Data source	Search strategy
MEDLINE	("health needs" OR "Educational needs") AND (self-care OR self-management) AND "diabetes mellitus"
	("health needs" OR " Educational needs assessments") AND (self-care OR self-management) AND "diabetes mellitus"
	("Health Services Needs and Demand" OR "Health Needs" OR "Needs Assessments") AND "diabetes mellitus" AND (self-care OR self-management)
	("health needs") AND "diabetes mellitus" AND adult AND (self-care OR self-management)
	"Health needs" AND (self-care OR self-management) AND diabetes mellitus
Web of Science	("health needs" OR "Educational needs") AND (self-care OR self-management) AND "diabetes mellitus"
	("Health Services Needs and Demand" OR Need OR "Health needs") AND ("diabetes mellitus" AND adult) AND (self-care OR self-management)
	Health needs" AND (self-care OR self-management) AND diabetes
SCOPUS	(Health Services Needs and Demand" OR "health needs" OR "Needs Assessments" OR "Educational needs assessment") AND "diabetes mellitus" AND adult AND (self-care OR self-management)
	("Health Services Needs and Demand" OR "Health Needs" OR "Needs Assessments") AND "diabetes mellitus" AND ("self-care" OR "self-management")
	(need OR "health needs") AND "diabetes mellitus" AND adult AND (self-care OR self-management)
Embase	('diabetes Mellitus/exp OR 'diabetes mellitus') AND ('adult'/exp OR adult) AND ('needs'/exp OR needs) AND ('self -care/exp OR self-care OR 'self-help'/exp OR 'self-help') AND health
CINAHL	("health needs" OR "Educational needs") AND (self-care OR self-management) AND "diabetes mellitus
	("health needs" OR " Educational needs assessments") AND (self-care OR self-management) AND "diabetes mellitus"
	diabetes mellitus" AND (adult) AND ("health services needs and demands" OR needs OR "needs assessments" OR "Educational needs assessment") AND (self-care OR self-management) AND "disease management"
	"Health Services Needs and Demand" OR Need OR "Health needs") AND ("diabetes mellitus" AND adult AND (self-care OR self-management)
LILACS, BDEF, IBDCS	("diabetes mellitus") AND (adulto) AND (Necessidades OR "Necessidades e demandas dos serviços de saúde" OR "Determinação de Necessidades de Cuidados de Saúde") AND (Autocuidado OR Autogerenciamento)
The Networked Digital Library of Theses and Dissertations (NDLTD)	("diabetes mellitus") AND (adulto) AND (Necessidades OR "Necessidades e demandas dos serviços de saúde" OR "Determinação de Necessidades de Cuidados de Saúde") AND (Autocuidado OR Autogerenciamento)
Google Scholar	("Health Services Needs and Demand" OR "Health Needs" OR "Needs Assessments") AND "diabetes mellitus" AND (self-care OR self-management)
CAPES	(diabetes mellitus" AND adult) AND ("health services needs and demand" OR needs OR "needs assessments" OR "Educational needs assessment") AND (self-care OR self-management)
	("Health Services Needs and Demand" OR Need OR "Health needs") AND ("diabetes mellitus") AND (self-care OR self-management)
Proquest	("Health Services Needs and Demand" OR Need OR "Health needs") AND ("diabetes mellitus") AND adult AND (self-care OR self-management)

Figure 2 – Scoping review search strategies according to data source. Fortaleza, CE, Brazil, 2024

The systematized search for studies took place in June 2024 with the help of two researchers and, blindly and independently, the selection was carried out using the Rayyan software⁽¹³⁾.

The studies were collected from the Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed, the Latin American and Ca-

ribbean Health Sciences Literature (LILACS), the Spanish Bibliographic Index in Health Sciences (IBECS) and the Nursing Database (BDEFN), through: Virtual Health Library (VHL), Embase, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science (WOS), SCOPUS and the Google Scholar gray literature repository. In addition to the gray literature repository

ries: the Brazilian Digital Library of Theses and Dissertations (NDLTD), Catalog of Theses and Dissertations (CTD) of the Coordination for the Improvement of Higher Education Personnel (CAPES), and the ProQuest Dissertations and Theses Platform (PQDT).

A priori reading of titles, abstracts, and keywords was carried out, observing the eligibility criteria adopted, and then the selected studies were evaluated by reading them in full until the final sample was reached. The following were analyzed: title, authors, year, country, objective, type of study, research scenario, sample size, characterization of participants

(patients/professionals), type of DM, interventions, need to be presented, suggestions for addressing the need, and limitations.

The information from the studies was categorized and organized in the Excel database, and the main findings were described and presented in the form of figures and graphic illustrations.

Results

Twenty-six studies were included in the qualitative synthesis, as shown in Figure 3.

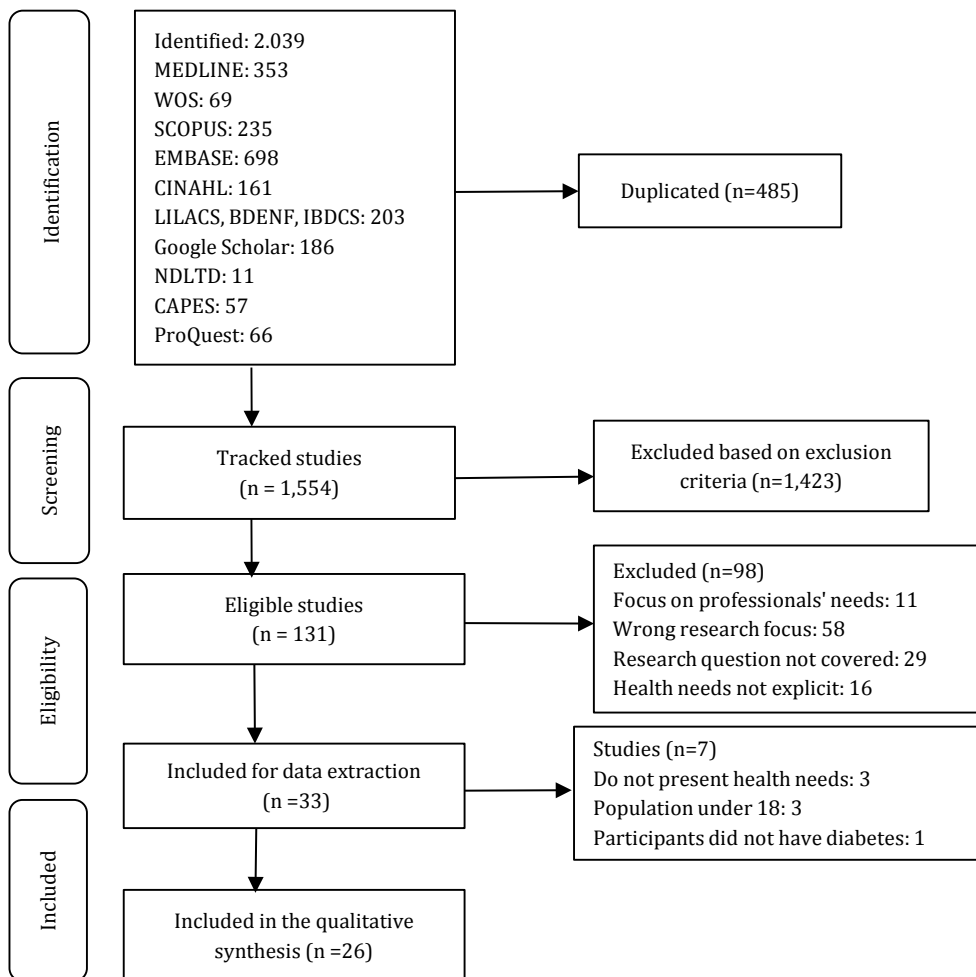


Figure 3 – Diagram of search and selection of studies based on Prisma-ScR. Fortaleza, CE, Brazil, 2024

The characterization of the studies included in the final review sample is shown in Figure 4, which

shows their main characteristics in terms of publication and identification information.

ID*	Country/ Place of study	Type of Study	Sample and participants	Interventions
A1 ⁽¹⁴⁾	Canada/ Rural communities	Qualitative	38 Adults with DM1	Focus group
A2 ⁽¹⁵⁾	China/ Outpatient	Qualitative	13 Adults with DM1 and DM2	Guided interview
A3 ⁽¹⁶⁾	USA /Primary Care Clinic	Qualitative	18 Homeless people with DM, social service providers, and medical services	Interview
A4 ⁽¹⁷⁾	Tanzania and Sweden/ Clinical hospital	Comparative study between two groups	300 People with DM	Questionnaire
A5 ⁽¹⁸⁾	University hospital, a city hospital, and a clinic	Quantitative	634 Aged people with DM	Questionnaire
A6 ⁽¹⁹⁾	Local community centers	Exploratory qualitative	22 Adults with DM2	Focus group
A7 ⁽²⁰⁾	USA/	Exploratory qualitative	18 People with DM2	Interview
A8 ⁽²¹⁾	USA/ Outpatient	Participant observation	65 People with DM	Interview, physical assessment
A9 ⁽²²⁾	Netherlands/ Pharmacy	Qualitative	18 People with DM2	Individual in-depth interviews and focus groups
A10 ⁽²³⁾	Intercontinental/ Tertiary referral hospital	Design-based research	42 people with DM1 and DM2 with comorbidities and chronic kidney disease	Semi-structured interview and script production
A11 ⁽²⁴⁾	Singapore/ Diabetes centers of metropolitan hospitals	Qualitative	14 Aged people with DM2	Focus group
A12 ⁽²⁵⁾	Canada/ Local Group	Qualitative descriptive interpretative	8 Adults with DM1	Semi-structured interview
A13 ⁽²⁶⁾	Malaysia/ Primary Care clinic of a university medical center	Qualitative	31 Malays, Indians, and Chinese with DM2	Focus groups
A14 ⁽²⁷⁾	Denmark/ Diabetes education program	Qualitative	22 People with DM1 and DM2	Focus groups
A15 ⁽²⁸⁾	Spain/ Primary Care	Qualitative	34 People with DM2	Focus groups
A16 ⁽²⁹⁾	Rwanda/ Rwanda Diabetic Association Clinic	Qualitative	21 Adults with DM1 and DM2	Semi-structured interview
A17 ⁽³⁰⁾	England/ Hospital	Person-centered approach	67 Adults with DM1	Focus groups and individual semi-structured interviews
A18 ⁽³¹⁾	USA/ Community clinics	Exploratory and descriptive	19 Latin American adults with DM2	<i>PhotoVoice and focus groups</i>
A19 ⁽³²⁾	Jordan/ Hospital outpatient clinic	Qualitative	36 People with DM2	Focus groups
A20 ⁽³³⁾	Turkey/ University Hospital	Qualitative	15 People with DM2	Semi-structured interview
A21 ⁽³⁴⁾	Germany/ Diabetes Polyclinic	Quantitative and qualitative	178 People with DM2 and their doctors	Semi-structured interview and questionnaire
A22 ⁽³⁵⁾	USA/ Hospital Outpatient	Qualitative	15 Insulin-dependent patients with DM2	Semi-structured interview
A23 ⁽³⁶⁾	USA/ Free health clinic in central North Carolina	Qualitative	73 Hispanic immigrants with DM2 and their families	Focus groups
A24 ⁽³⁷⁾	Australia/ Diabetes outpatient clinic in Brisbane	Qualitative	17 DM2 patients and doctors	Focus groups
A25 ⁽³⁸⁾	USA/ Dakota	Qualitative	21 people with DM1	Telephone interviews
A26 ⁽³⁹⁾	China	Qualitative	5 people with DM2	Semi-structured interview

*ID: Identification; DM: diabetes mellitus; DM1: type 1 diabetes; DM2: type 2 diabetes

Figure 4 – Characterization of the studies included in the scoping review. Fortaleza, CE, Brazil, 2024

The publications involved in this review were published between 1982 and 2023, with a predominance of publications in 2019 (4; 15.3%). In terms of country, the United States of America (USA) stood out (7; 26.9%), Canada (2; 7.6%), as well as various countries in Europe, Asia, Oceania, and Africa, including Denmark, Spain, Turkey, Singapore, China, Sweden, Japan, Australia, Malaysia, Holland, Germany, Rwanda, England, Jordan, with one publication each. There was also a multicenter study carried out in 14 different countries.

As for the participants, most studies involved people with type 2 diabetes (DM2) (12; 46.1%), followed by both types (4; 15.3%), people with type 1

diabetes (4; 15.3%), without specifying DM type/no typology (3; 11.5%). One study with the participation of family members stands out. Studies in hospitals and outpatient clinics (11; 42.3%) were the most common study settings, but there were also studies in primary care (3; 11.5%), specialized care (3; 11.5%), and other locations, such as community centers, rural communities, pharmacies, diabetes education programs, local centers, cities (one study each). One study did not specify the setting.

As for the health needs found, they could be divided into four categories arranged in a mind map (Figure 5).

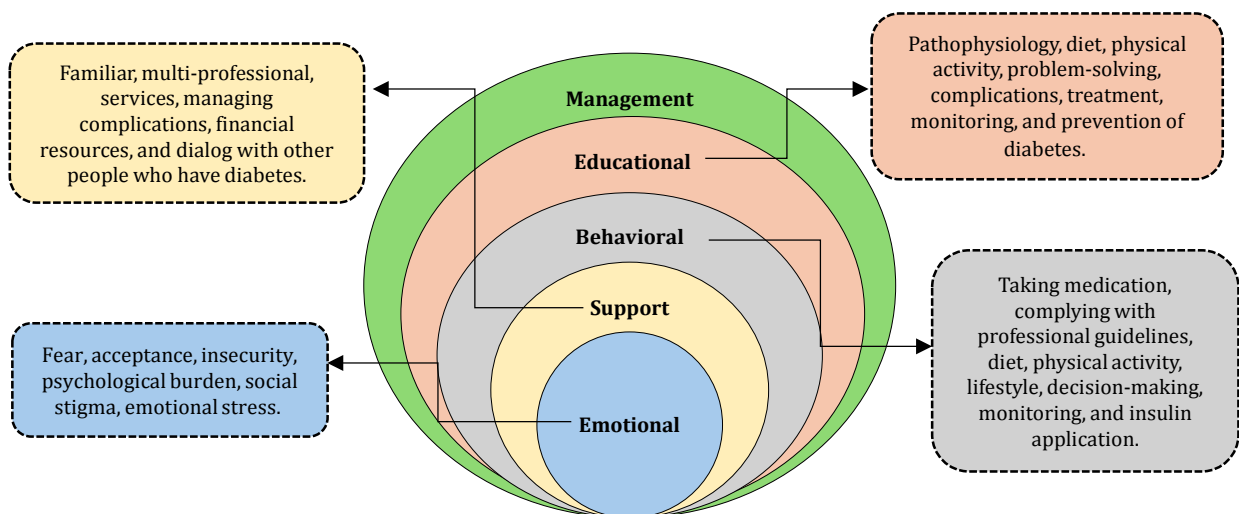


Figure 5 – Mind map of the health needs presented by people with diabetes mellitus in the face of disease management. Fortaleza, CE, Brazil, 2024

The presented needs were found in the studies in descending order, with the most frequent being educational, which corresponded to the main aspects of the disease and disease management, and the least frequent being those related to emotional needs.

The educational needs stand out: the lack of information on the various aspects of the disease, from pathophysiology to complications^(17,21,23,28,35,37); clear, reliable and accurate information on diet and physical activity^(19,22,23,28,30,33,39); problem-solving/monitoring^(20,22,35); treatment and side effects, insulin the-

rapy and techniques⁽²¹⁾; the best time to take medication^(20,26,29,32,34); information on avoiding kidney complications, foot and eye care^(23,28); hypoglycemia⁽³⁵⁾; information on type 1 DM⁽²⁵⁾; and health education for young people to prevent the disease⁽³¹⁾.

The behavioral needs pointed out were remembering to use the medication because of the routine^(16,24) following self-care guidelines, such as medical instructions⁽¹⁷⁾; resistance to implementing changes in diet, physical activity, and lifestyle^(19,24); decision-making needs regarding diet, exercise and diabetes

monitoring^(25,36); reconciling diet with the daily routine⁽²⁷⁾ and training in the technique for applying insulin⁽³⁵⁾.

Support needs include the lack of support felt by people with DM when it comes to their families, both in terms of behavioral decisions and support in carrying out daily activities^(18,38) and reconciling the appropriate guidelines. There is also a lack of professional support in terms of guidelines for managing the disease^(22,25,26,34), as well as complementary services for their care^(21,25), including the multi-professional team⁽³⁵⁾.

People with DM also feel the need to share their life experiences and doubts with other people who have the same diagnosis. Also included in this support are the financial resources that prevent proper monitoring due to the lack of materials^(15,36).

About emotional needs, feelings such as fear linked to hypoglycemia and insulin injection^(32,33) and complications^(15,35) were found, factors that compromise quality of life. The psychological burden of managing the disease, feelings of insecurity due to episodes of hypoglycemia⁽¹⁵⁾, and acceptance of the disease^(19,25) are highlighted, considering the presence of emotional stress⁽²⁴⁾ and social stigma⁽²⁵⁾.

Discussion

Diabetes management is challenging, which is why its practice should be constantly encouraged by health services and professionals. Good measures lead to better glycemic control, early identification of complications, better monitoring of treatment, and, consequently, a better quality of life for those with diabetes. In this context, health actions with an emphasis on digital interventions, including apps, educational games, and websites⁽¹⁴⁾, have been identified as supporting these measures, and diabetes has moved beyond the biological sphere to include the psychosocial factors experienced by this population. Understanding these challenges allows professionals to be better prepared to deal with this scenario.

Most of the studies were carried out on the European continent, the region with the second highest cost per person for diabetes. The USA stood out in terms of publications, as it ranks first in terms of the number of people in North America, with 32.2 million adults with the disease. It should be noted that there were no publications from South America, including Brazil. This is alarming, given that the country ranks at the top of the index in the South American region, with 15.7 million people with DM⁽¹⁾.

Providing care for people with DM encompasses all levels of health care. In this review, there was a greater number of studies carried out in hospital settings, as it is more common to invest in the complications of the disease in these environments. However, there was also research carried out in primary and specialized care services, revealing similar needs in different contexts.

Concerning educational needs, diabetes education is one of the pillars of good disease management and a good quality of life. Self-care for people with DM1 is related to knowledge about the disease, complications, family support, a support network, and a multi-professional team. Professionals should provide health care based on qualified listening and facilitating access to health care services for people with diabetes. It is important to extend this attention to family members, who also need health education to play their role as supporters in-home care⁽⁴⁰⁾.

Lack of information is a major challenge for people with diabetes and is one of the most important educational needs for successful diabetes care. This involves both the care received and the care that must be initiated based on the knowledge acquired. In addition, the guidance and information provided must be clear, understandable, and interesting⁽²⁸⁾.

Individualized information on the severity of diabetes has been identified as necessary by patients, as has sufficient information on diabetes management, especially on how to make good choices. Including the need to have the knowledge and skills to manage diabetes, and to have the skills to apply them

to complex decision-making, such as balancing efforts towards weight control and good food intake and their impact on blood glucose levels⁽³⁷⁾. The need for more knowledge about diabetes has been identified to manage the disease more effectively. Specifically, the desire to learn more about exercise, dietary modification, and the disease process⁽³⁹⁾.

Diabetes education is one of the pillars for good management of the disease and a good quality of life. Therefore, the needs presented in this study show that the main obstacles to managing the disease are closely related: education and behavior^(17,19-25,35). Behavioral and cognitive aspects relating to knowledge of the disease and beliefs are motivated by emotional aspects and directly influence self-care⁽⁴¹⁾. As an assumption, it is important to make information available through printed and electronic materials and programs for people with diabetes, which is very common in primary care^(7,42).

In addition to information, it is important to have a support network to help with behavioral needs in the face of diabetes, as these changes are generally not easy and take time⁽⁴¹⁾. The diabetes support network should follow the integrality of care and should involve health professionals, family members, and the social environment^(40,43). Access to social support was identified as a strategy for reducing the risk of living with diabetes. Participants who had support from family or health professionals reported better overall management⁽³⁸⁾.

They also help people cope with bad emotions, such as anxiety, sadness, guilt, frustration, and fear of complications. People feel the need to have professionals who can guide them properly and understand their anxieties, fears, and anxieties⁽⁴¹⁾ through qualified listening, supported by shared decisions^(22,25,34).

As in our findings, fear has also been pointed out as an emotional aspect of DM management in other studies⁽⁴¹⁾. People with DM have shown fear of complications, as well as anger, sadness, difficulty accepting the disease, anguish, and resistance to behavioral changes related to diet and physical activity,

which can sometimes trigger inappropriate self-care measures, but they can also show joy and satisfaction when they achieve desired self-care goals⁽⁴¹⁾. Support is further weakened by the scarcity of material and financial resources linked to the economic conditions of the person with diabetes themselves, as well as health services⁽⁴⁴⁾.

Spending on diabetes has increased over the years and has reached 966 billion for adults aged 20 to 79. This expenditure refers to direct private or government spending related to the disease⁽¹⁾. Even with this panorama, the increase in spending does not mean that it is being applied effectively. Socio-economic characteristics in different regions of the world affect the adoption of diet-related behaviors, where people, although they receive guidance on diet, don't have the resources to put it into practice in their daily lives⁽³⁶⁾. In addition, monitoring is also affected by the lack of inputs and human resources, reflected in the unavailability of services from the multi-professional team, especially nurses, doctors, and nutritionists, who are pointed out, among the professional categories, as important supports for DM management^(40,43).

It is important to highlight the role of the interdisciplinary team in caring for people with DM. As a chronic disease, DM involves a macro dimension that cuts across various health specialties⁽⁴⁵⁾. This reflects the need to have professionals involved in their care who support and contribute to dealing with the needs presented, through systematic follow-up, with welcoming, bonding, and health education with individual and collective activities and clinical approaches⁽⁴⁶⁾. In this context, nurses stand out in carrying out educational actions that encourage better decisions and changes in health behaviors⁽⁴⁷⁻⁴⁸⁾. It is important to have the organization of care to support the success of health actions⁽⁴⁷⁾.

It is therefore important to invest in improving health care, not only for people with DM but also for professionals, as there is no management without both⁽⁴⁾. It is also worth remembering that disease management involves what needs to be done to live with

a chronic illness, the care strategies used, when and how they are accessed, as well as what is recommended to them by health professionals⁽⁴⁹⁾.

Study Limitations

The study's limitations include the lack of studies with a high level of evidence, even though the scoping review was not intended to produce evidence. However, it is hoped that the study can contribute to stimulating other types of research, covering different audiences.

Contributions to practice

With our findings, it is possible to elucidate and guide intervention research in the area, guiding researchers to design educational interventions that can meet the needs presented here. In addition, it will also guide professionals in their clinical practice to reflect on the care provided, to help them make decisions based on the needs presented by the public, and to direct the planning and execution of care.

Conclusion

It was observed that people with diabetes mellitus have educational, behavioral, supportive, and emotional health needs, which are interconnected and have an impact on disease management and quality of life. Thus, educational strategies should be planned for and applied in clinical practice, as well as intervention studies to meet these demands, prevent problems, and promote the health of people with diabetes mellitus.

Authors' contribution

Conception and design or data analysis and interpretation: Nascimento FG, Oliveira SKP. Writing of the manuscript or relevant critical review of the intellectual content; final approval of the version to be

published; agreement to be responsible for all aspects of the manuscript in ensuring that the accuracy and integrity of any part are properly investigated and resolved: Nascimento FG, Belchior AB, Brilhante RRC, Ferreira MA, Gomes CMP, Costa MLP, Oliveira SKP.

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