e-ISSN:1806-1230

DOI: 10.5020/18061230.2022.12072

Therapeutic itineraries of people with diabetes *mellitus* in Brazil: an integrative review Itinerários terapêuticos de pessoas com diabetes *mellitus* no Brasil: revisão integrativa Itinerarios terapéuticos de personas con diabetes mellitus en Brasil: revisión integrativa

Juliana Gollo 📵

University of Contestado (Universidade do Contestado) - Concórdia (SC) - Brazil

Pamela Guliani

University of Contestado (Universidade do Contestado) - Concórdia (SC) - Brazil

Ana Maria Cisotto Weihermann 🛈

University of Contestado (Universidade do Contestado) - Concórdia (SC) - Brazil

Maiara Bordignon 🛈

Federal University of Paraná (Universidade Federal do Paraná) - Toledo (PR) - Brazil

ABSTRACT

Objective: To analyze the scientific production on therapeutic itineraries of people with Diabetes *Mellitus* in Brazil. Methods: This is an integrative literature review of publications retrieved from the Medical Literature Analysis and Retrieval System Online (MEDLINE), Scientific Electronic Library Online (SciELO), Web of Science, Latin American and Caribbean Health Sciences Literature (LILACS) and the Nursing Database (*Base de Dados Enfermagem – BDENF*), including in these last two cases the gray literature (theses and dissertations). Inclusion criteria were: field, theoretical and review research article, experience report or course completion work that addressed the therapeutic itineraries of patients with Diabetes *Mellitus* in Brazil, in English, Portuguese or Spanish, published until the date of the searches (March and April 2020), without restrictions as to the starting date. Results: Ten publications made up the final sample. The results were grouped into four thematic categories: a) experience in relation to health care services, b) health care support resources, c) self-care practices used and d) difficulties in self-care and coping with Diabetes Mellitus. Conclusion: The organization and articulation of services, the performance of the teams, the family or social support and personal, socioeconomic, and work aspects are factors that influence therapeutic itineraries and coping with Diabetes *Mellitus*.

Descriptors: Patient Acceptance of Health Care; Health Services Accessibility; Diabetes Mellitus; Self Care.

RESUMO

Objetivo: Analisar a produção científica sobre itinerários terapêuticos de pessoas com diabetes mellitus no Brasil. Métodos: Trata-se de uma revisão integrativa da literatura com publicações recuperadas a partir do acesso a Medical Literature Analysis and Retrievel System Online (MEDLINE), Scientific Electronic Library Online (SciELO), Web of Science, Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS) e Base de Dados Enfermagem (BDENF), incluindo nestes dois últimos casos a literatura cinzenta (dissertações e teses). Os critérios de inclusão deram-se por: artigo de pesquisa de campo, teórico e de revisão; relato de experiência ou trabalho de conclusão de curso que abordasse os itinerários terapêuticos de pacientes com diabetes mellitus no Brasil, no idioma inglês, português ou espanhol, publicado até a data das buscas (março e abril de 2020), sem restrição quanto à data inicial. Resultados: Dez publicações compuseram a amostra final. Os resultados apresentaram-se agrupados em quatro categorias temáticas: a) experiência em relação aos serviços de atenção à saúde; b) recursos de apoio no cuidado à saúde; c) práticas de autocuidado utilizadas; e d) dificuldades para o autocuidado e enfrentamento do diabetes mellitus. Conclusão: A organização e a articulação dos serviços, a atuação das equipes, o apoio familiar ou social, além de aspectos pessoais, socioeconômicos e laborais são fatores que influenciam os itinerários terapêuticos e o enfrentamento do diabetes mellitus.

Descritores: Comportamento de Procura de Cuidados de Saúde; Acesso aos Serviços de Saúde; Diabetes Mellitus; Autocuidado.



This Open Access article is published under the a Creative Commons license which permits use, distribution and reproduction in any medium without restrictions, provided the work is correctly cited

Received on: 01/09/2021

Accepted on: 03/09/2022

RESUMEN

Objetivo: Analizar la producción científica sobre los itinerarios terapéuticos de personas con diabetes mellitus en Brasil. Métodos: Se trata de una revisión integrativa de la literatura con publicaciones recuperadas a partir del acceso al Medical Literature Analysis and Retrievel System Online (MEDLINE), Scientific Electronic Library Online (SciELO), Web of Science, Literatura Latino-Americana y del Caribe en Ciencias de la Salud (LILACS) y la Base de Datos Enfermería (BDENF), incluyendo en los dos últimos casos la literatura gris (trabajos de maestría y tesis). Los criterios de inclusión se dieron por artículo de investigación de campo, teórico y de revisión; relato de experiencia o trabajo de fin de grado que tratara de itinerarios terapéuticos de pacientes con diabetes mellitus en Brasil, en los idiomas inglés, portugués o español, que hubiera sido publicado hasta la fecha de las búsquedas (marzo y abril de 2020), sin restricción de la fecha inicial. Resultados: Diez publicaciones han compuesto la muestra final. Los resultados se presentaron de manera agrupada en cuatro categorías temáticas: a) experiencia con los servicios de atención a la salud; b) recursos de apoyo con el cuidado de salud; c) prácticas de autocuidado utilizadas; y d) dificultades para el autocuidado y el afrontamiento de la diabetes mellitus. Conclusión: La organización y la articulación de los servicios, la actuación de los equipos, el apoyo familiar o social, además de los aspectos personales, socioeconómicos y laborales son factores que influyen en los itinerarios terapéuticos y el afrontamiento de la diabetes mellitus.

Descriptores: Aceptación de la Atención de Salud; Accesibilidad a los Servicios de Salud; Diabetes Mellitus; Autocuidado.

INTRODUCTION

Therapeutic itineraries consist of resources sought or used by individuals to meet their demands or solve their health problems, thus evidencing their health care-related behaviors and experience with health services^(1,2). Hoping to find a solution to their health problem, people resort to different treatments considering their ability to respond to their feelings, the resources available at the moment and the possibilities of cure⁽³⁾. Therefore, therapeutic itineraries have been increasingly studied, but research on the topic is recent and little explored in Brazil^(1,2). Studies have analyzed the therapeutic itineraries of people with different health conditions or life situations, referring to the paths taken by them in an attempt to solve their health needs, problems or suffering^(2,4-7). This set includes studies on the itineraries of people with chronic health conditions^(8,9) given their prevalence and social impact on the current health system.

Noncommunicable diseases comprise a set of health conditions that represent approximately 70% of the causes of mortality in Brazil⁽¹⁰⁾. This group includes diabetes *mellitus* (DM), which consists of a long-term health condition resulting from the existence of high levels of glucose in the blood due to the absence or deficiency in the production of insulin by the body or in its action⁽¹¹⁾. Although data already show prevalence rates of DM ranging 6.6 to 9.4% in the Brazilian adult population, with population aging and changes related to health behaviors a substantial increase in noncommunicable diseases is expected over the years^(10,12,13). Globally, it is estimated that cases of diabetes *mellitus* will increase from 463 million people in 2019 to 578 million in 2030 and 700 million in 2045⁽¹¹⁾. These data show that diabetes *mellitus* is among the main challenges for health systems worldwide in the 21st century⁽¹¹⁾.

In addition to the magnitude, the literature shows an association of DM with the occurrence of complications in the lower limbs and feet, such as chronic ulcers and amputations, visual impairment or blindness, kidney problems and cardiovascular diseases, which generate costs and new health demands and impact on quality of life, morbidity and mortality^(11,14,15). Thus, diabetes *mellitus*, as well as other chronic diseases, has prompted nations to plan and implement strategies that seek to prevent it and minimize its complications⁽¹¹⁾.

It should be noted that there is a strategic action plan in Brazil that aims to face and stop noncommunicable diseases in the country, including DM, cancer, heart attack, cerebrovascular accident (CVA), arterial hypertension and chronic respiratory diseases⁽¹⁰⁾. Within the scope of the Prevent Brazil Program (Programa Previne Brasil), in force since January 2020 and which established a new financing model for Brazilian Primary Health Care (PHC), it is also possible to note that among the indicators adopted for payment for performance is the percentage of people with DM with request for glycated hemoglobin in the past 12 months⁽¹⁶⁾. Undoubtedly, the magnitude of chronic conditions has increasingly influenced the structure and organization of health care networks, particularly with regard to the importance of the work of Primary Care teams in promoting the health of the population, preventing DM or other chronic conditions – and their complications⁽¹⁷⁾.

Thus, it is deemed relevant to understand the therapeutic itineraries of people with DM, considering that such analyses can be important sources of information for improving the quality of care networks, management and care practices, thereby contributing to the promotion of health and quality of life^(1,18). It is through the analysis of therapeutic itineraries – which point out the places and resources that people seek or use in order to solve their health problem or achieve well-being and comfort^(1,2) – that possibilities of health promotion can be identified, as currently there is an understanding that health promotion starts from a broad concept of the health-disease process to propose the articulation between technical and popular knowledge and mobilize institutional or community resources in favor of

quality of life⁽¹⁸⁾. More than the ease or difficulty in accessing health services, therapeutic itineraries reflect health determinants, indicating, in most cases, the importance of addressing them in their breadth through public policies, intersectoral action and community mobilization⁽¹⁸⁾.

Thus, this study was developed with the aim of analyzing the scientific production on therapeutic itineraries of people with diabetes *mellitus* in Brazil.

METHODS

This is an integrative literature review study carried out in six stages: (1) formulation of the research question; (2) selection of the study sample; (3) presentation of study characteristics; (4) analysis of results; (5) interpretation of results; and (6) review report⁽¹⁹⁾. In the first stage, which refers to the formulation of the research question⁽¹⁹⁾, the following question was defined: how are the therapeutic itineraries of people with diabetes *mellitus* in Brazil configured? Based on that, the contextual delimitation considered the fact that health systems and the organization of services vary across countries⁽²⁰⁾, and so do the social, educational and cultural factors that influence therapeutic itineraries^(1,2). Therefore, the study specifically focused on the Brazilian context.

Based on the research question, search strategies were built and applied to the the databases and selection of studies, comprising the second stage of the review⁽¹⁹⁾. Table 1 presents the Health Sciences Descriptors (*Descritores em Ciências da Saúde – DeCS*) (*itinerário terapêutico*; therapeutic itinerary) and the keyword (*itinerários terapêuticos*) used. Such terms were listed considering their frequent mention in publications on the topic. We also report the number of publications found and the filters applied during the search in the following databases: Latin American and Caribbean Health Sciences Literature (LILACS), via the Virtual Health Library (BVS), Medical Literature Analysis and Retrievel System Online (MEDLINE), via PubMed, Scientific Electronic Library Online (SciELO), Web of Science Nursing Database (*Base de Dados Enfermagem – BDENF*), via BVS. Through access to LILACS and BDENF, course completion works (dissertations or theses) were retrieved (grey literature). The period selected for this review included the studies published up to the date of the searches in the databases (March 29, 2020 or April 17, 2020), with no restriction applied as to the initial date so that it was possible to analyze the scientific research on the topic (Chart 1).

Chart 1 - Data on the search for studies.

Database	Database Study search strategies (n = number of publications found)		
LILACS* (via VHL)	(tw:("itinerário terapêutico")) (n = 113) (tw:("itinerários terapêuticos")) (n = 94)	LILACS, Portuguese, English and Spanish	
MEDLINE' (PubMed)	"therapeutic itinerary" (n=28)	Humans, MEDLINE, English, Portuguese and Spanish	
SciELO'	(ab:("itinerário terapêutico")) (n = 66) (ab:("itinerários terapêuticos")) (n = 91)	Portuguese, English and Spanish	
Web of Science	("therapeutic itinerary") (n = 41)	All fields, Portuguese, English and Spanish	
BDENF [‡] (via BVS)	(ab:("itinerário terapêutico")) (n = 54) (ab:("itinerários terapêuticos")) (n = 9)	,	

*Search carried out on March 29, 2020. *Search carried out on April 17, 2020. LILACS: Latin American and Caribbean Health Sciences Literature; MEDLINE: Medical Literature Analysis and Retrieval System Online; SciELO: Scientific Electronic Library Online; BDENF: Nursing Database; BVS: Virtual Health Library

In this review, the following inclusion criteria were considered: (1) format: field research articles, theoretical and review articles, experience reports, course completion works that addressed the therapeutic itineraries of patients with diabetes *mellitus* in Brazil; (2) period: published until the date of the searches, without restriction as to the initial date; and (3) language: English, Portuguese or Spanish. Publications that did not meet the above criteria were disregarded, as were duplicates and publications without a full text, such as course completion works with no full text available in the database used or in the institutional repository. Each study was analyzed by two researchers independently, which allowed the comparison of selected studies and consensus regarding the sample. Figure 1 represents the step-by-step selection of studies.

With the sample defined, we proceeded to step 3, that is, the extraction and presentation of the characteristics of the studies⁽¹⁹⁾. Information on publications was retrieved, such as information on authorship, year of publication and journal in which they were published in addition to the objective and type of study, theoretical framework, participants and context analyzed, data collection method, data analysis and results.

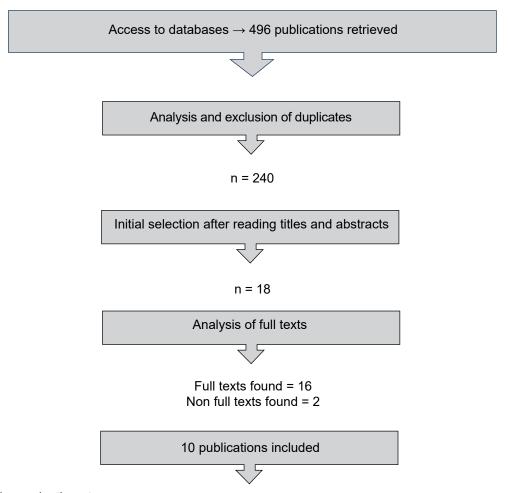


Figure 1 - Study conduction steps.

Then, in the fourth and fifth stages⁽¹⁹⁾, data and results were analyzed and discussed. For analysis, considering the similarity criterion, four thematic categories were defined, namely: (1) experience in relation to health care services; (2) health care support resources; (3) self-care practices used; and (4) difficulties in self-care and coping with diabetes *mellitus*. It ended with the sixth stage, which represents the review report, including information that allows understanding the process from which the synthesis of results was presented⁽¹⁹⁾.

RESULTS

The selected publications dated predominantly from the year 2016 (30%) and were articles (70%). Methodological designs with a qualitative approach formed the basis for the research carried out. The studies took place in different states of the country, such as Santa Catarina, Espírito Santo, Rio de Janeiro, Rio Grande do Sul, Alagoas and Mato Grosso (Chart 2).

Based on the analysis of the selected studies, four thematic categories were defined and are presented below:

Experience in relation to health care services

Some of the difficulties in pursuing a therapeutic itinerary included fragmented and one-off appointments, the delay getting an appointment when being referred to a specialist, and weaknesses in the referral and counterreferral in the Health Care Networks (HCN)^(21,22). However, although some barriers have been reported in relation to appointments at PHC centers, such as seeking the center early to get the appointment or making more than one attempt until getting it, such difficulties are not the standard⁽²²⁾.

With regard to care, studies highlighted weaknesses in user embracement and humanization, the complaints of participants regarding the medical examination and the perception that appointments and examinations are procedures, not clearly associating them with treatment or care⁽²³⁻²⁵⁾. One of the reasons for the appointment was the renewal of the prescription, which makes it possible to get the medication from the center's pharmacy⁽²²⁾.

Chart 2 - Characteristics of the selected publications, objectives and methodological aspects.

Study information (S)	Study objective	Type of study and theoretical framework	Participants and context	Data collection method	Data analysis
S 1 ⁽²¹⁾ 2018 Revista de Enfermagem UFPE Online	To understand, based on the theoretical framework of institutional analysis, the therapeutic itineraries and the experience of the illness of subjects living with diabetes <i>mellitus</i>	Qualitative approach Theoretical- methodological framework of institutional analysis	Six people with diabetes mellitus, from the Health Territory of the municipality of Serra, Espírito Santo	Narrative interview Questionnaire for characterization of subjects and guiding question Notes in a field diary (non-participant observation)	According to the theoretical framework of institutional analysis
S 3 ⁽²²⁾ 2016 Master's thesis	To describe the therapeutic itinerary taken by people with diabetes living in Manguinhos to obtain health care and medication, identifying the main strategies used to face the existing barriers	Predominantly qualitative study	Twelve people with diabetes mellitus using insulin, two per team from the Victor Valla Family Clinic (Clinica da Familia Victor Valla – CFVV), Rio de Janeiro	Semi-structured interviews, field diary, consultation of clinical records, the secondary database and interview with the manager of the Victor Valla Family Clinic to collect epidemiological data and map the offer of services	Thematic content analysis
S 5 ⁽²³⁾ 2012 Master's thesis	To analyze the therapeutic itineraries of men in a situation of chronic illness living in the rural community Rincão dos Maia, Canguçu/Rio Grande do Sul	Qualitative, descriptive and exploratory approach	Twelve men residing in a rural community in the south of Rio Grande do Sul	Semi-structured interviews, non-participant observation, field diary and focus group	Data triangulation, Thematic Analysis Technique, Use of software: SmartDraw (construction and presentation of itineraries and genogram), and NVivo8
S 10 ⁽²⁴⁾ 2016 Revista Interfaces Brasil/ Canadá	To describe the therapeutic itineraries of quilombola women to deal with health problems and/ or diseases	Qualitative, descriptive, exploratory research, based on a case study	Three women: a young woman (20 years old), an adult (43 years old) and an older woman (63 years old), living in a quilombola community located in the rural area of the State of Alagoas	Interviews	Content analysis
S 4 ⁽²⁵⁾ 2007 Revista Latino- Americana de Enfermagem	To understand the therapeutic itinerary of adolescents with type 1 diabetes <i>mellitus</i> and their families linked to a health institution in Florianópolis, Santa Catarina	Qualitative, convergent care study Arthur Kleinman's health care model and therapeutic itinerary design were used.	Five adolescents with type 1 diabetes <i>mellitus</i> and fifteen family members The adolescents were members of a multiprofessional health service for people with diabetes <i>mellitus</i> linked to a teaching hospital and residents of Greater Florianópolis.	Semi-structured interviews and field observation	Coding and categorization of data
S 2 ⁽²⁶⁾ 2016 Brazilian Journal in Health Promotion	To know the experience of family members and adolescents with type 1 diabetes mellitus in relation to the disease and the therapeutic itinerary to the public health network	Qualitative exploratory research	Ten adolescents with type 1 diabetes mellitus and ten family members who participated directly in care at three health centers in Santa Catarina	Open interview and field observation (observation form)	Content analysis
S 6 ⁽²⁷⁾ 2011 Doctoral dissertation	To build cartographies of care for diabetes <i>mellitus</i> from the perspective of therapeutic itineraries in contexts of poverty; to analyze the interinfluences of this care; to discuss relationships and mediations established between common sense knowledge and "scientific" knowledge involved in health care services and professional actions in the direction of limitations and their practical efficiency	Qualitative approach	18 health professionals involved in care, seven subjects with DM and six family members	Interviews with the participants, preceded by interviews using the technique of free association of words related to the inducing term - Diabetes <i>mellitus</i> . Follow-up of two families for months	Thematic content analysis, word association analysis, utterance analysis resources in interviews with people with diabetes <i>mellitus</i> Use of software: NVivo and Ensemble de programmes permettant l'analyse des évocations — EVOC

Chart 2 - Characteristics of the selected publications, objectives and methodological aspects.

Study information (S)	Study objective	Type of study and theoretical framework	Participants and context	Data collection method	Data analysis
S 7 ⁽²⁸⁾ 2009 Texto & Contexto – Enfermagem	To understand the trajectory undertaken by a person with diabetes <i>mellitus</i> from the municipality of Sorriso, Mato Grosso, when seeking care for their health needs, as well as to analyze the logic that guided them in this search, having as a perspective the principle of integrality of health care	Case study Focal Life History methodological approach	Mr. Miguel, from the municipality of Sorriso, Mato Grosso, who was admitted to the surgical clinic of a public hospital in Cuiabá, Mato Grosso, for amputation of the right hallux due to necrosis	In-depth interview	Careful reading of the data, design of the therapeutic itinerary and organization of the analysis into clusters
S 8 ⁽²⁸⁾ 2006 Revista Brasileira de Enfermagem	To know the therapeutic itinerary of people with diabetes <i>mellitus</i> in the search for care and treatments in the different health care subsystems	Study based on qualitative research from an interpretivist perspective	29 people with diabetes mellitus. Study carried out in two health institutions in Santa Catarina, in addition to their households	In-depth interviews and focus groups	Analysis of interviews and focus groups (organization, (re) readings, coding and interpretation of results) and triangulation of the analysis
S 9 ⁽⁰⁾ 2013 Revista Enfermagem da Universidade Estadual do Rio de Janeiro	To identify the perception of the person who receives the diagnosis and discuss the emotional impact of the diagnosis on the subject's life history	Qualitative and descriptive study	10 people with diabetes mellitus, enrolled to the Hiperdia Program of a health care polyclinic in Niterói, Rio de Janeiro	Semi-structured narrative interview	Thematic content analysis technique

S: Study

A study on the therapeutic itinerary of men with chronic illness pointed out: the poor problem-solving capacity of Primary Care; the delay in service and lack of resources, which contribute to the more sporadic presence of this population group in the services; and the search for hospitals and emergency rooms⁽²³⁾. This same study showed the participants' sought the professional care system at times of exacerbation (more serious) of the health problem and the use of private medical services⁽²³⁾.

Another study⁽²⁷⁾ found that the most used places were family health centers, laboratory services, specialized outpatient clinics in hospitals and emergency care, with some of the participants followed up in specialized outpatient clinics, thus maintaining their bond with the family health centers only after the visit of the Community Health Worker (CHW)⁽²⁷⁾.

Health care support resources

We found that family and neighbors are important for coping with the health condition and its treatment, and so are religiosity and spiritual practices^(21-23,25,26). Acceptance of the health condition is possibly understood, as a great challenge for the patient and their families. Therefore, the creation of entertainment and educational groups was identified as a support resource, which can contribute to the offer of guidance and clarification of doubts^(23,26). In a situation of chronic illness, support can also be obtained in the worsening of the health problem, with the mobilization of family members, friends and neighbors in addition to health professionals⁽²³⁾.

Self-care practices used

It can be observed that several care practices are used, and they are often not the only treatments and care inherent to the professional system^(22,24,25,29). Patients or their families adopt some care practices considering their assessment of what is most appropriate, what generates physical well-being and interference in their daily lives^(25,29). Among the treatments or care practices used, the following stood out: teas; diet; self-medication; use of oral medications and insulin; lab tests; physical exercise; religious practices, such as prayers; and the search for health services and participation in therapeutic groups^(22,24,29). In case of hypoglycemia, there was a report of intake of sugar or foods with sugar content. In the case of hyperglycemia, the use of medication, the search for a health service or no action at all stood out⁽²²⁾.

Difficulties in self-care and coping with diabetes mellitus

Some of the aspects that influence care in relation to diabetes mellitus highlighted in the research were difficulties

with dieting, including the need to adapt it, distance from origins and the financial issue for purchasing certain foods, as well as difficulties in performing physical exercises and using medication, which interferes with glycemic control^(21,22,25-27).

Dieting also implies social coexistence⁽²⁶⁾. In that regard, a study showed difficulties of people with DM in maintaining an adequate diet at work in addition to difficulties related to the transport/administration of insulin and the performance of daily tasks⁽²²⁾. The feeling of fear of "feeling sick" and shame for the differentiated diet were highlighted⁽²²⁾.

The impact of DM on work was also mentioned, and it is due to possible financial problems and adherence to the recommended treatment^(23,27). Socioeconomic status interferes in the monitoring of diabetes *mellitus* and in the treatment of complications⁽²⁷⁾ as the participants often indicated trying, but failing, when performing what had been recommended⁽²⁷⁾. In addition, the difficulty in accessing medicines that were not available in the center was also highlighted among patients with some complication generated by the disease⁽²⁷⁾.

Research has shown that the diagnosis of DM was associated with a set of feelings, including difficulties in accepting it or understanding the dimensions of the disease, denial of the health condition, loss of self-esteem, sadness, emotional shock, anger, feeling of limitations, rebelliousness, stubbornness, concern, fear of complications and death^(22,27,28,30).

DISCUSSION

In this review, a set of aspects were found to be associated with the therapeutic itineraries of people with diabetes *mellitus*, including experiences regarding access to and use of health services, care practices used to cope and treat the health condition, the resources that make up the support network and the self-care difficulties that arise. The analysis of these aspects is important considering that care for people with chronic diseases is a challenge today⁽²¹⁾.

Studies on the therapeutic itinerary of people with diabetes *mellitus* in Brazil have reported difficulties in accessing health services and weaknesses in referral and counterreferral and in the link with Primary Care^(21-23,27). Research carried out with the aim of evaluating health care for people with diabetes *mellitus* in the scope of Primary Care pointed out the challenge that still exists regarding the implementation of Health Care Networks and the Model of Care for Chronic Conditions (*Modelo de Atenção às Condições Crônicas – MACC*)⁽³¹⁾. The same authors highlighted weaknesses in the link between Primary Care and the specialized or secondary health service and the care that is far from the perspective of comprehensiveness⁽³¹⁾.

It is understood that the structuring of Health Care Networks can lead to better results in chronic conditions and in the efficiency of health systems, also contributing to people's satisfaction⁽³²⁾. In the organization of these networks, improving the quality of Primary Care is essential so that actions at this level of health care are aligned with the expected functions and supported by their own attributes^(32,33).

Therefore, the importance of analyzing access, care flows, interdisciplinary action, the care offered within the scope of Primary Care and the strategies used to operationalize them should be highlighted so as to identify and consider the offer of new ways of clinical meetings that contribute to the care of people with chronic conditions⁽³²⁾. Thus, the relevance of user embracement and humanization – which are sometimes described as weak⁽²³⁾, is understood to promote the link between professionals, users and families –, which contributes to the existence of dialogs sensitive to the emotions and health needs, which affect the understanding of the chronic condition, acceptance and adherence to care⁽³⁰⁾.

Actions centered on users and seeking to promote their proactivity can encourage them to be agents of social production of their own health, supported by the team and their social network⁽³²⁾. In the management of DM, self-care plays a prominent role in the prevention of complications and, therefore, should be promoted⁽¹¹⁾.

In that regard, the bond between health professionals and users is of paramount importance for the treatment, as it provides greater freedom in dialog so that emotions, feelings, knowledge and decisions are shared, thus contributing to the understanding of and coping with the health condition^(26,28,30). Health professionals, in addition to family, friends and neighbors, play a fundamental role in coping with a chronic health condition^(21-23,25,26).

Within this perspective, user embracement is considered a technology that promotes humanization and quality in health care, although it is often characterized by care provided in a one-off and fragmented manner or based particularly on complaints⁽³⁴⁾. The relevance of actions that promote self-care and shared responsibility for health should be highlighted based on the understanding that in the meeting between users and health professionals it is essential that there is space for dialog and for negotiation and appreciation of experiences, knowledge and health needs^(23,27). The absence of this space can impact on the coping with the chronic condition due to the users' and their families' difficulties in adhering to the prescriptions⁽²⁷⁾.

People with DM may have difficulties in coping with their health condition, as they often have little knowledge about diabetes, which usually leads to a worsening of the clinical picture and complications – as a consequence of unsatisfactory self-care and negative attitude towards coping with the disease⁽³⁵⁾. The adoption of care practices is influenced by users' analysis of what they consider most appropriate for coping with their health condition or for being able to cope with daily life, which influences self-care^(25,29).

One of the difficulties in engaging in self-care in relation to DM often reported by studies is dieting^(21,22,25-27). Adherence to a new lifestyle can be a great challenge for users, as it involves the adoption of healthy eating habits and the practice of physical activities⁽³⁵⁾. Support from and involvement of the family in this adaptation process are essential for overcoming possible difficulties inherent to changes in diet or others imposed by the health condition^(21-23,25,26).

Thus, the results of the current review contribute to substantiate reflections regarding the management of chronic conditions in Health Care Networks in Brazil, specifically diabetes *mellitus*, which is among the current discussions in health care. New studies will be able to report experiences related to care for people with diabetes *mellitus*, the challenges and potentialities, as well as evaluate strategies or models of care and health promotion.

As a limitation, we highlight the fact that the terms and databases adopted may not have allowed the retrieval of all relevant studies in the analysis of the therapeutic itineraries of people with diabetes *mellitus* in Brazil. On the other hand, terms related to the subject that are frequently adopted were used, as well as 5 databases that expand the possibilities of identification of studies.

CONCLUSION

There was a predominance of studies published in the form of articles, which applied a qualitative approach to research carried out and conducted in different states of Brazil, namely Santa Catarina, Espírito Santo, Rio de Janeiro, Rio Grande do Sul, Alagoas and Mato Grosso. The results showed the experience of people with diabetes *mellitus* in relation to health care services, the support resources in health care, the self-care practices used and the difficulties in self-care and coping with diabetes *mellitus*. It was identified that the organization and articulation of services, the performance of teams, family or social support, in addition to personal, socioeconomic and work aspects, influence the itineraries and coping with diabetes mellitus.

CONFLICTS OF INTEREST

There are no conflicts of interest to declare.

CONTRIBUTIONS

Juliana Gollo and **Pamela Guliani**: contributed to the study conception and design; selection, analysis and interpretation of data; and the writing of the manuscript. **Ana Maria Cisotto Weihermann** contributed to the writing and/or revision of the manuscript. **Maiara Bordignon** contributed to the study conception and design; selection, analysis and interpretation of data; and the writing and/or revision of the manuscript. All the authors have approved the final version to be published and are responsible for its content and integrity.

REFERENCES

- Cabral ALLV, Martinez-Hemáez A, Andrade EIG, Cherchiglia ML. Itinerários terapêuticos: o estado da arte da produção científica no Brasil. Ciênc. saúde coletiva [Internet]. 2011 [accessed on 2021 Jan 06];16(11):4433-4442. Available from: https://www.scielo.br/j/csc/a/mYPwbjYDvwRb4ScPGDyyxkr/?format=pdf&lang=pt.
- Demétrio F, Santana ER, Pereira-Santos M. O Itinerário Terapêutico no Brasil: revisão sistemática e metassíntese a partir das concepções negativa e positiva de saúde. Saúde debate [Internet]. 2019 [accessed on 2021 Jan 06];43(spe7):204-221. Available from: https://www.scielo.br/j/sdeb/a/THvRbrVLKYtqLydhYcrthfQ/ ?format=pdf&lang=pt.
- 3. Silva ND Júnior, Gonçalves G, Demétrio F. Escolha do itinerário terapêutico diante dos problemas de saúde: considerações socioantropológicas. Revista eletrônica discente história.com [Internet]. 2013 [accessed on 2021 Jan 06];1(1). Available from: https://www3.ufrb.edu.br/seer/index.php/historiacom/article/view/4.
- 4. França AFO, Silva RMM, Monroe AA, Mairink APAR, Nunes LC, Panobianco MS. Therapeutic itinerary of

- breast cancer women in a border municipality. Rev. Bras. Enferm. [Internet] 2021 [accessed on 2021 Jan 06];74(6):e20200936. Available from: https://www.scielo.br/j/reben/a/WMThRr9czsfQRhtFwThTMKh/?formatpdf&lang=en.
- Oliveira AH, Pinto AGA, Lopes MSV, Figueiredo TMRM, Cavalcante EGR. Therapeutic itinerary of people with tuberculosis in face with their health needs. Esc. Anna Nery [Internet]. 2019 [accessed on 2021 Jan 06];23(3):e20190034. Available from: https://www.scielo.br/j/ean/a/nWXCzWHyrtfgGrgG9FF9TsK/?format=pdf &lang=en.
- 6. Silva LF, Cursino EG, Brandão ES, Góes FGB, Depiant JRB, Silva LJ, et al. The therapeutic itinerary of health workers diagnosed with COVID-19. Rev. Latino-Am. Enfermagem [Internet]. 2021 [accessed on 2021 Jan 06];29:e3413. Available from: https://www.scielo.br/j/rlae/a/gNRNgrLT9tgffZNMWGbpz6v/abstract/?lang=en.
- 7. Hansel CG, Silva J, Araújo STC, Fernandes LLRA, Marins AMF, Almeida JRS. Demands in the therapeutic itinerary of the elderly: a descriptive study. Esc. Anna Nery [Internet]. 2020 [accessed on 2021 Jan 06];24(4):e20190375. Available from: https://www.scielo.br/j/ean/a/5368Z7G6rJHkMckgWWQwpZq/?format=p df&lang=en.
- Souza AMLB, Bastos RA, Guerra LM, Gondinho BVC, Meneghim MC, Leme PAT. Percepções sobre o Itinerário Terapêutico após acidente vascular cerebral: pesquisa qualitativa. Rev. Bras. Enferm [Internet].
 2021 [accessed on 2021 Jan 2021 Jan 06];74(3): e20201140. Available from: https://www.scielo.br/j/reben/a/7 dDqcj4h3z4R4LsmPjJ9m8S/?format=pdf&lang=pt.
- 9. Rodriguez JM, Cabeça LPF, Melo LL. Therapeutic itinerary of families of children with chronic diseases. Physis [Internet]. 2021 [accessed on 2021 Jan 2021 Jan 06];31(4):1-24. Available from: https://www.scielo.br/j/physis/a/SB94CPRVNqs5WDMvHBXq7BF/?format=pdf&lang=en.
- 10. Ministério da Saúde (BR), Secretaria de Vigilância em Saúde, Departamento de Análise de Situação de Saúde. Plano de ações estratégicas para o enfrentamento das doenças crônicas não transmissíveis (DCNT) no Brasil 2011-2022 [Internet]. Brasília: Ministério da Saúde; 2011 [accessed on 2021 Jan 06]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/plano acoes enfrent dcnt 2011.pdf.
- International Diabetes Federation. IDF Diabetes Atlas [Internet]. 9th ed. Brussels: IDF; 2019 [accessed on 2021 Jan 06]. Available from: https://www.diabetesatlas.org/upload/resources/material/20200302_133351_ IDFATLAS9e-final-web.pdf.
- 12. Malta DC, Duncan BB, Schmidt MI, Machado IE, Silva AG, Bernal RTI, et al. Prevalence of diabetes mellitus as determined by glycated hemoglobin in the Brazilian adult population, National Health Survey. Rev Bras Epidemiol [Internet]. 2019 [accessed on 2021 Jan 06];22(Suppl 2). Available from: https://www.scielo.br/j/rbepid/a/qQttB6XwmqzJYgcZKfpMV7L/?format=pdf&lang=en.
- 13. Flor LS, Campos MR. The prevalence of diabetes mellitus and its associated factors in the Brazilian adult population: evidence from a population-based survey. Rev Bras Epidemiol [Internet]. 2017 [accessed on 2021 Jan 06];20(1):16-29. Available from: https://www.scielo.br/j/rbepid/a/sHGVt9sy9YdGcGNWXyhh8GL/?format=pdf&lang=en.
- 14. Tonetto IFA, Baptista MHB, Gomides DS, Pace AE. Quality of life of people with diabetes mellitus. Rev. esc. enferm. USP [Internet]. 2019 [accessed on 2021 Jan 06];53:e03424. Available from: https://www.scielo.br/j/reeusp/a/BtZQyTJ3GLD7VKSqSLsmp4R/?format=pdf&lang=en.
- 15. Costa AF, Flor LS, Campos MR, Oliveira AF, Costa MFS, Silva RS, et al. Burden of type 2 diabetes mellitus in Brazil. Cad. Saúde Pública [Internet]. 2017 [accessed on 2021 Jan 06];33(2):e00197915. Available from: https://www.scielo.br/i/csp/a/ThBcgyS737wVTCKk8Zm9TDM/?format=pdf&lang=en.
- 16. Sellera PEG, Pedebos LA, Harzheim E, Medeiros OL, Ramos LG, Martins C, et al. Monitoring and evaluation of Primary Health Care attributes at the national level: new challenges. Ciênc. saúde coletiva [Internet]. 2020 [accessed on 2021 Jan 06];25(4):1401-1412. Available from: https://www.scielo.br/j/csc/a/NCfvbHp8bjTnGZvFq6mNsYS/?format=pdf&lang=en.
- 17. Borges DB, Lacerda JT. Actions aimed at the Diabetes Mellitus control in Primary Health Care: a proposal of evaluative model. Saúde debate. 2018 [accessed on 2021 Jan 06];42(116):162-178. Available from: https://www.scielo.br/j/sdeb/a/Rw6pYJ7C9PVwdCpYBYfp5yh/?format=pdf&lang=en.

- 18. Buss PM, Hartz ZMA, Pinto LF, Rocha CMF. Health promotion and quality of life: a historical perspective of the last two 40 years (1980-2020). Cienc. Saúde Colet [Internet]. 2020 [accessed on 2021 Jan 06];25(12):4723-4735. Available from: https://www.scielo.br/j/csc/a/5BJghnvvZyB7GmyF7MLjqDr/?format=pdf &lang=en.
- 19. Ganong LH. Integrative Reviews of Nursing Research. Res Nurs Health. 1987;10(1):1-11.
- 20. Santos JC, Melo W. Estudo de saúde comparada: os modelos de atenção primária em saúde no Brasil, Canadá e Cuba. Gerais, Rev. Interinst. Psicol [Internet]. 2018 [accessed on 2021 Jan 06];11(1):79-98. Available from: http://pepsic.bvsalud.org/pdf/gerais/v11n1/07.pdf.
- 21. Coqueiro JM, Oliveira AE, Figueiredo TAM. Itinerários terapêuticos de sujeitos com diabetes mellitus: linhas fortes e fracas. Rev enferm UFPE on line [Internet]. 2018 [accessed on 2021 Jan 06];12(6):1554-1562. Available from: https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/231706/29247.
- 22. Rocha NR. Itinerário terapêutico para acesso a medicamentos de portadores de diabetes mellitus atendidos pelo TEIAS Escola Manguinhos [thesis]. Rio de Janeiro: Escola Nacional de Saúde Pública Sérgio Arouca; 2016.
- 23. Burille A. Itinerários terapêuticos de homens em situação de adoecimento crônico: (des)conexões com o cuidado e arranhaduras da masculinidade [thesis]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 2012 [accessed on 2021 Jan 06]. Available from: https://lume.ufrgs.br/bitstream/handle/10183/49719/000851144.pdf?sequence=1&isAllowed=y.
- 24. Fernandes SL, Santos AO. Itinerários terapêuticos de mulheres quilombolas do agreste alagoano, Brasil. Revista Interfaces Brasil/Canadá [Internet]. 2016 [accessed on 2021 Jan 06];16(2):127-143. Available from: https://periodicos.ufpel.edu.br/ojs2/index.php/interfaces/article/view/7562.
- 25. Mattosinho MMS, Silva DMGV. Itinerário terapêutico do adolescente com diabetes mellitus tipo 1 e seus familiares. Rev Latino-am Enferm [Internet]. 2007 [accessed on 2021 Jan 06];15(6). Available from: https://www.scielo.br/j/rlae/a/WvfHVGf6NvykKMjqp9fx99M/?lang=pt&format=pdf.
- 26. Finco M, Bertoncini JH. Itinerário terapêutico e vivência dos familiares e adolescentes com diabetes mellitus tipo 1. Rev. bras. promoç. Saúde [Internet]. 2016 [accessed on 2021 Jan 06];29(3):371-379. Available from: https://periodicos.unifor.br/RBPS/article/view/4607/pdf.
- 27. Souza AC. Cartografias do cuidado de indivíduos com diabetes mellitus em situações de pobreza [dissertation]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 2011.
- 28. Thaines GHLS, Bellato R, Faria APS, Araújo LFS. A busca por cuidado empreendida por usuário com diabetes mellitus: um convite à reflexão sobre a integralidade em saúde. Texto Contexto Enferm [Internet]. 2009 [accessed on 2021 Jan 06];18(1):57-66. Available from: https://www.scielo.br/j/tce/a/6wRQ77jXYBK9nX wpv3sq9GP/?format=pdf&lang=pt.
- 29. Silva DGV, Francioni FF, Souza SS, Mattosinho MMS, Coelho MS, Sandoval RCB, et al. Pessoas com Diabetes Mellitus: suas escolhas de cuidados e tratamentos. Rev Bras Enferm [Internet]. 2006 [accessed on 2021 Jan 06];59(3):297-302. Available from: https://www.scielo.br/j/reben/a/XsPkNvsR7nBYLxBhFXZtbYk/?fo rmat=pdf&lang=pt.
- 30. Ferreira DSP, Daher DV, Teixeira ER, Rocha IJ. Repercussão emocional diante do diagnóstico de diabetes mellitus tipo 2. Rev. enferm. UERJ [Internet]. 2013 [accessed on 2021 Jan 06];21(1):41-46. Available from: https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/6346/4519.
- 31. Salci MA, Meirelles BHS; Silva DMGV. Primary care for diabetes mellitus patients from the perspective of the care model for chronic conditions. Rev. Latino-Am. Enfermagem [Internet]. 2017 [accessed on 2021 Jan 06];25:e2882. Available from: https://www.scielo.br/j/rlae/a/KqrCzL9TjgWHKKCpHZpQF4G/?format=pdf&lang =en
- 32. Mendes EV. Interview: The chronic conditions approach by the Unified Health System. Ciênc. saúde colet [Internet]. 2018 [accessed on 2021 Jan 06];23(2):431-436. Available from: https://www.scielo.br/j/csc/a/cdNG mPZ6qRFKzRn4qZLXWRB/?format=pdf&lang=en.
- 33. Lima JG, Giovanella L, Fausto MCR, Bousquat A, Silva EV. Atributos essenciais da Atenção Primária

- à Saúde: resultados nacionais do PMAQ-AB. Saúde debate [Internet]. 2018 [accessed on 2021 Jan 06];42(spe1):52-66. Available from: https://www.scielo.br/j/sdeb/a/dTT4C8BxFNTFMftQcdcZjqc/?format=pdf&l ang=pt.
- 34. Costa PCP, Garcia APRF, Toledo VP. Welcoming and nursing care: a phenomenological study. Texto contexto enferm [Internett]. 2016 [accessed on 2021 Jan 06];25(1):e4550015. Available from: https://www.scielo.br/j/tce/a/3GvY54tXyc38jRr5kdbNyhj/?format=pdf&lang=en.
- 35. Assunção SC, Fonseca AP, Silveira MF, Caldeira AP, Pinho L. Knowledge and attitude of patients with diabetes mellitus in Primary Health Care. Esc. Anna Nery [Internet]. 2017 [accessed on 2021 Jan 06];21(4):e20170208. Available from: https://www.scielo.br/j/ean/a/VKnfBrxPjnRnNGdwNKs7Zjr/?format=pdf&l ang=en.

Mailing address:

Maiara Bordignon Universidade Federal do Paraná - UFPR Rodovia PR 182, S/N, Km 320/321 CEP: 85919-899 - Toledo - PR- Brasil E-mail: maiarabordignon@gmail.com

How to cite: Gollo J, Guliani P, Weihermann AMC, Bordignon M. Therapeutic itineraries of people with Diabetes Mellitus in Brazil: an integrative review. Rev Bras Promoç Saúde. 2022;35:12072.