

Therapeutic itinerary of elderly people with diabetes *mellitus*: implications for nursing care

Itinerário terapêutico de pessoas idosas com Diabetes Mellitus: implicações para o cuidado de enfermagem Itinerario terapéutico de personas ancianas con diabetes mellitus: implicancias para la atención de enfermería

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ABSTRACT

Objective: to describe the therapeutic itinerary of elderly people with diabetes mellitus registered at Family Health Strategy units. **Methods:** qualitative and descriptive study carried out with 15 elderly people with diabetes mellitus between February and April 2019 by applying semi-structured interviews with the participants. Data were submitted to analysis of Minayo's operational proposal. **Results:** in the folk care subsystem, the use of medicinal herbs, healers, and faith was emphasized by the participants. In the professional care subsystem, Family Health Strategy units were the services with the strongest bond to elderly people, but these patients still had to resort to the private healthcare network. Family proved to be the main source of support in the popular care subsystem. **Final considerations:** nursing must acknowledge the different types of knowledge, coping strategies, beliefs, and the culture of elderly people with diabetes mellitus to guarantee the delivery of comprehensive care. **Descriptors:** Aged; Diabetes *Mellitus*; Nursing Care; Primary Health Care; Family Health Strategy.

RESUMO

Objetivo: descrever o itinerário terapêutico de pessoas idosas com diabetes *mellitus* cadastradas em unidades de Estratégia Saúde da Família. **Método:** estudo qualitativo, descritivo, realizado com 15 pessoas idosas com diabetes *mellitus*, entre fevereiro e abril de 2019, por meio de entrevista semiestruturada. Os dados foram submetidos à análise da proposta operativa de Minayo. **Resultados:** no subsistema de cuidado folclórico, foi evidenciado o uso de plantas medicinais, de benzedores e fé. No subsistema de cuidado profissional, as equipes de Estratégia Saúde da Família são os serviços de maior vínculo com as pessoas idosas que, porém, ainda precisam recorrer à rede privada de saúde. A família mostra-se como principal fonte de apoio no subsistema de cuidado popular. **Considerações finais:** faz-se necessário que a enfermagem reconheça a pluralidade de saberes, estratégias de enfrentamento, crenças e cultura das pessoas idosas com diabetes *mellitus*, para garantir um cuidado integral.

Descritores: Idoso; Diabetes *Mellitus*; Cuidados de Enfermagem; Atenção Primária à Saúde; Estratégia Saúde da Família.

RESUMEN

Objetivo: Describir el itinerario terapéutico de personas ancianas con diabetes mellitus registradas en unidades de Estrategia Salud de la Familia. **Método:** Estudio cualitativo, descriptivo, realizado con 15 ancianos con diabetes mellitus entre febrero y abril de 2019 utilizando entrevistas semiestructuradas. Datos sometidos a análisis de la propuesta operativa de Minayo. **Resultados:** En el subsistema de cuidado folclórico, fue evidenciado el uso de plantas medicinales, de curanderos y fe. En el subsistema de atención profesional, los equipos de Estrategia Salud de la Familia son los de mayor vínculo con los ancianos que, aún, precisan recorrer la red privada de salud. La familia se muestra como fuente de apoyo principal en el sistema popular. **Consideraciones finales:** Es necesario que la enfermería reconozca la pluralidad de saberes, estrategias de enfrentamiento, creencias y cultura de los ancianos con diabetes mellitus para garantizar una atención integral.

Descriptores: Anciano; Diabetes *Mellitus;* Atención de Enfermería; Atención Primaria de Salud; Estrategia de Salud Familiar.



INTRODUCTION

Aging is a process marked by individual rhythm and evolution and is influenced by biopsychosocial factors. Noncommunicable chronic diseases are not intrinsically related to aging, but when people get old they become more likely to develop some diseases, including diabetes mellitus (DM). This disease is a public health problem. In 2017, Brazil occupied the fourth place in the global ranking of a number of people who live with DM⁽¹⁾, and global projections indicated that approximately 463 million people in the age group from 20 to 79 years had this morbidity in 2019 and that this number can increase to 700 million people in 2045. Additionally, it is estimated that one out of five people older than 65 years has DM⁽²⁾.

Studies have shown that, when present in elderly people, DM interferes with quality of life, since it increases the risk of impairment of the motor function, the incidence of sarcopenia, and the chances of developing the frailty syndrome, characteristics that are not observed in people with the same chronological age who do not have DM. This suggests that the disease leads to early biological aging⁽³⁻⁴⁾.

Therapeutic itinerary (TI) is one of the central concepts of socioanthropological health studies⁽⁵⁾ and aims to interpret the process by which people or social groups choose certain forms of health treatment. The initial studies on TI originated from the expression "illness behavior" and were based on the logic of individual conducts in the search for health services, guided by cost-benefit⁽⁵⁾. The concept expanded its analytical scope from the 1980s onwards, especially with the studies by Arthur Kleinman, who began giving more emphasis to the different medical notions of health and disease and their interaction with the healthcare system⁽⁵⁾.

When faced with the establishment of a disease, people seek different therapeutic resources, which offer different trajectories in the attempt to solve the problem that bothers them⁽⁵⁾. One of the paths to obtain assistance is primary health care, which materializes as the Family Health Strategy (FHS) and is the first level of health care⁽⁶⁾. The Brazilian National Health Policy to Elderly People (Política Nacional de Saúde da Pessoa Idosa - PNSPI, in Portuguese) considers FHS the main gateway to access health services, and it is the care organizer and coordinator⁽⁷⁾. Consequently, FHS⁽⁸⁾ teams are given the responsibility to follow the population with DM. They also have to promote care practices that take into account people's individuality and complexity.

Given the nature of nursing interventions, it becomes relevant that nurses know the knowledge of elderly people with DM and the trajectory taken by them in their attempt to obtain care, considering the sociocultural context in which they are inserted and their experience with the disease. Therefore, acknowledging the specificity of the aging process and the care possibilities regarding elderly patients with DM's beliefs and own ways to understand life, health, and disease contributes to nursing care in gerontological follow-up.

Aiming to elucidate the TI of elderly people with DM, the present study adopted the healthcare system proposed by Kleinman as a guide⁽⁹⁾. This author intended to clarify the influence of the social and cultural matrix on the understanding of the process of health, disease, and care based on the interaction of three subsystems: folk, professional, and popular. The first admits

inclusion of nonprofessional healing specialists, such as healers and prayers. The professional subsystem represents scientific care, including traditional medical systems. The popular segment encompasses the family sphere and social and community networks⁽⁹⁾. People circulate in these subsystems based on the interpretation of their health or disease status and seek actions that can provide treatment or healing. These subsystems are responsible for the development of different therapeutic realities designed as sociocultural constructs, linked to beliefs about the disease and the experience with the symptoms, leading to the establishment of a systemic and interconnected relationship⁽⁹⁾.

From the information above, it can be inferred that the number of studies on the healthcare practices of elderly people with DM who follow their TI is still limited, which justified the development of the present study. This limitation calls for the need to design studies that can deepen the knowledge of gerontological nursing in primary health care for professionals to understand the care strategies and the trajectories taken in the different care subsystems. Given this context, the following question was asked: What is the TI put into practice by elderly people with DM who receive care by means of the FHS? It is expected that knowing the TI of elderly people with DM allows to expand the knowledge on the subject to provide professionals with resources to nursing practice and actions oriented toward elderly people to guarantee care comprehensiveness.

OBJECTIVE

To describe the TI of elderly people with DM registered at FHS units.

METHODS

Ethical aspects

The proposal was approved by the Research Ethics Committee at the Federal University of Santa Maria. The ethical principles involved in human research were observed, in conformity with Resolution no. 466/2012. Data were produced after the participants signed free and informed consent forms. Each interview was identified with the letter "I" followed by a number that indicated its position in the sequence of interviews (I1, I2, etc.).

Study type

This is a qualitative and descriptive study. Its methodological details were based on the Consolidated Criteria for Reporting Qualitative Research checklist⁽¹⁰⁾.

Methodological procedures

Setting

The present study was carried out with elderly people with DM registered at FHS units in a municipality in the South Region of Brazil between February and April 2019. The authors opted to choose two FHS units in the same municipality to be the study setting because these places held the multiprofessional residency

of a federal university and developed a work oriented toward the elderly population with noncommunicable chronic diseases.

Data source

The sample was 15 elderly people with DM. This number of participants allowed information repetition and data saturation⁽¹¹⁾. Participant selection occurred with the collaboration of nurses and community health workers at the health units, who helped find elderly patients with DM. After that, the main researcher went to these patients' houses in person to invite them to participate in the study. Once the invitation was accepted, a new visit was scheduled, according to the patients' day and time availability and at the place that was most convenient for them.

The participants were elderly people with DM who were intentionally selected after meeting the following inclusion criteria: having preserved cognitive capacity as per evaluation in the Mini-Mental State Examination(12); having an established DM diagnosis for at least two years; and being registered at a FHS unit. This two-year period was chosen because the authors understood that it would be enough for the elderly people to have explored the possibilities available in the healthcare systems and, consequently, for them to be able to describe a proper Tl.

Data collection and organization

Data collection occurred by interviewing the participants using a semi-structured script. The interview had two parts: the first had questions related to the characterization of the participants, and the second had five open-ended questions formulated by the researchers which allowed to obtain a description of the TI of elderly people with DM. These questions were: (1) Can you tell how you found out that you that DM?; (2) Who helps you when you need care?; (3) What type of bond do you have with these people?; (4) What services do you seek for treatment or care?; and (5) Have you ever sought or have you been seeking any alternative form of treatment?. All the interviews were carried out in the participants' houses, privately, observing secrecy and privacy during data collection. The interviews had an average duration of 60 minutes and had their audio recorded after the participants authorized it. Before the data collection step, a pilot test was conducted with three elderly people with DM whose data were not included in the study.

Data analysis

Data analysis was grounded on Minayo's operational proposal(13), for which the following steps are recommended: data ordering, data classification, data analysis, and report drafting. The interviews were transcribed and exported to the NVivo® software to facilitate data ordering and classification.

RESULTS

The participants of the present study were 15 elderly people with DM, of whom six were men and nine were women. Their age ranged from 61 to 74 years, and their average level of education was incomplete middle school. Twelve participants lived with their partners and three were widows or widowers. Regarding profession, 13 were retired people, one received the Continuous Provision Benefit, and one had no financial sources and was waiting to reach the minimum age to receive this benefit. The DM diagnosis time was between five and 23 years.

To understand the TI dimension of elderly people with DM, data were organized into three thematic categories:

Folk practices and their implications for the care of elderly people with DM

The information on use and preparation of medicinal herbs originated in the social relationships with friends, neighbors, and relatives, who made up a support network that contributed to the treatment for DM, which is a development found in the folk subsystem.

> [...] I have a liana called monkey liana. It was the husband of my cousin, from the colony, who sent it to me [...] my brother taught me. You get a piece of liana and put it in one liter of water and boil it. And then you drink it over the day, it is very good. (17, 62 years old)

The participants reported success in the use of teas to control glycemia and vouched for the hypoglycemic effect of medicinal herbs because of the result they obtained in the self-monitoring of capillary glycemia.

> [...], but if you drink java plum tea, you can measure and you will see, your glucose will be lower. I ran a test a couple of days ago, I skipped metformin, which I take daily, for a few days, and I drank the tea only and felt nothing, it was all the same. (16, 68 years old)

It was observed that some participants interrupted their medication to validate the effectiveness of the tea. In addition to drinking teas, other care practices were adopted by the elderly people with DM in their TI, including faith and prayers chanted by healers.

> I have a lot of faith, I always pray. If faith does not heal, it soothes or controls the disease [...] I feel good and it gives you strength in life, we get stronger spiritually and it impacts our life and our body. (18, 65 years old)

These practices emerged as care elements and were used with a broad perspective to seek a better health condition and support in the coping with the disease.

> There is a healer here in the city, in the neighborhood [...] she says a prayer with everybody in a room and then she gets close to everyone's head. We went there to see if this disease can be healed [...] I have always gone to these places believing that I was going to get better [...] we get well and feel better. (I11, 64 years old)

The therapeutic care entrusted to the ritual of submitting to the procedures of a healer was mentioned as a help to control and heal the disease, and consequently offered the feeling of well-being. The finitude perception was identified in the accounts of the participants, who asked God for longer survival.

> We think: why this inside me, this disease? Will I go before the due time? I have to help myself. They work and they are all well, I have

to get well too, I do not want to depend on anyone, and may God help me! (110, 66 years old)

The way people experience the development of DM, combined with the losses inherent in aging, affects the subjective dimension of care, which encompasses emotions, desires, and the confrontation with finitude and death.

Perceptions of elderly people with DM regarding professional care

The TI showed that FHS was considered the main gateway of elderly people with DM to health services, because this strategy allows follow-up and the establishment of bonds with this population.

It is all in the health unit, as I told you: it is our reference in health, or it is in the hospital, in case of an emergency at night, in case of fever, pain, or even when I get bad because of diabetes, as has already happened. The nurses are really thoughtful. They have been working there, at that unit, for many years, and end up knowing our health situation. (I10, 66 years old)

The accounts contained references to the nurses, who have a close relationship with elderly people because of the follow-up they carry out over time in FHS. The participants mentioned in their TI the difficulties they faced to access the service in FHS, such as queues to schedule appointments and visits at dawn to receive care.

There are special appointments for elderly people and people with diabetes, but it takes time. Now it is all in the queue, I went there to have an appointment and the [...] said that you have to go there early morning if you are not ok, and if you get the form, fine, otherwise you get an appointment scheduled for another day or you go through the nursing embracement. (I2, 73 years old)

Nurses were cited for working in the embracement to elderly people as a way to make access to health services feasible. Another point that emerged in the accounts was the choice of health services based on the perception of severity signs.

There are queues in the health unit, but I always go there to have a follow-up of my diabetes and high blood pressure problems. In the hospital, you have to wait too, we choose the place according to the situation, if it is serious or not. For example, I go to the hospital when it is high blood pressure or very strong pain, and to the health unit for routine check-ups, diabetes tests, or dressings. (I4, 71 years old)

The participants mentioned the hospital network because they considered that this service is more efficient in case of a more complex problem. Appointments in the private network were cited as a strategy adopted in the patients' TI when there is a delay in the referrals by the Brazilian Unified Health System (SUS, as per its acronym in Portuguese). However, the economic vulnerabilities to which elderly people with DM are exposed hinder this practice.

If I had to pay a doctor, it would not be easy. All the follow-up is done out there, in the unit, I only paid for the ophthalmologist because it was serious and I could not get care by SUS. Now that I got it by SUS, my follow-up is at the eye hospital. (I9, 69 years old)

As the elderly people obtained access to SUS, they abandoned the private healthcare network. In the studied area, community health workers were mentioned as professionals present in care who followed the health situation of elderly people.

The person who helps me here is the community health worker. I have questions, give her a shout, and she comes here, explains, and gives me guidance. She is always around the streets of the neighborhood, knows people's lives. I was taking a medicine some days ago, got confused, she came here and explained the things to me, and we found out that I was not even taking the medicine. (115, 63 years old)

In their daily work routine, community health workers clarify questions and provide guidance, meeting the population's needs. Another point of access to FHS is the health education group activities, considered by the participants as tools that boost learning of self-care related to DM.

I participated in the groups for people with diabetes and high blood pressure at the health unit, which occurred once a month, with several professionals [...] I have learned a lot, with both the professionals and the patients, about diabetes. The community health worker comes to my house and tells me the day the group meetings will be held. It was with the nurse, the pharmacist, the doctor, and, sometimes, the nutritionist. You begin understanding what diabetes is. Oh, sometimes the dentist would participate too. (17, 62 years old)

The groups were indicated as an environment that favored the development of the participants in the personal sphere regarding the health and disease process. Based on the TI of elderly people with DM, it is possible to understand that professional care will always be requested by elderly people and their relatives, because of its cultural influence as the prevailing care model and the fact that it leads to effective results in case of worsening of the disease.

Care relationships identified in the popular care subsystem: networks woven with the support of family and friends

The participants found motivation for care inspired in their families and in emotional and affective bonds. Family proved to be the most important part of the popular care subsystem for elderly people with DM.

That is why I take great care of myself, especially being 71, and there is a lot I have to do to help my son. Here I have my daughter-in-law and my grandson and, when it is necessary, we help one another [...] we live for one another, we take care of our health to live longer. (I4, 71 years old)

The participants emphasized a mutual relationship in care, in which elderly people with DM provided and received care from relatives, such as children and grandchildren. The former had a direct influence on the TI of elderly people, offering support and participating in the search for care.

My son that lives far away called very often to check how I was. My husband said: Let's see a doctor [...], I said that I was well. And my daughters said: Mom, the doctor said that you were not well. One day, they scheduled an appointment [...] and I went

to the doctor's office, kinda against my will, their scheduling the appointment was not necessary. I have my life, you know, I go where I want, and they took the reins. (I1, 71 years old)

In contrast, the elderly people also described this situation as embarrassing, because they had always had autonomy and independence to seek the necessary health resources. Other care relationships were mentioned by the participants, with emphasis on social interactions and support of their neighbors.

My neighbor around the corner is very supportive [...]. He takes care of me a lot. My daughter assigned him to come here to take a look at me. She calls him and asks him if everything is fine. We trust him, and I get more comfortable if I need someone's help. (115, 63 years old)

It was identified that, in the absence of the patients' children, the nonfamily care network ended up carrying out the main care. However, the chronic disease became incorporated into the life of the participants and their relatives and, consequently, the latter encouraged the former to comply with the care conducts.

DISCUSSION

The results showed that, although the participants had access to health resources by means of FHS, the use of medicinal herbs and other care practices were incorporated into to the TI of the interviewed elderly people with DM, as indicated by the items mentioned in the folk care subsystem. A study showed that the use of medicinal herbs is present in the daily life of people and that this practice is applied not only in case of lack of access to health services resources, but is a form of self-care⁽¹⁴⁾. The use of medicinal herbs is a common practice⁽¹⁵⁾ among people with DM and is disseminated in the popular culture by means of social relationships⁽¹⁶⁾ involving people who obtained some positive effect on the control of the disease by consuming a product from these plants.

Capillary glycemia self-monitoring was used by the participants to confirm the efficacy of medicinal herbs in reducing glycemia. This practice is seen as a sociocultural construct, which borrows an action of the biomedical model and adapts it to the popular therapeutic strategies. It was observed in another study that, in this process of appropriation of biomedical practices, people reinterpret their knowledge based on their reality and according to their needs⁽¹⁴⁾, which illustrates the interpenetrability of scientific and popular backgrounds. In addition, it is important to identify the cultural characteristics of a certain population, establish a dialogue between the different types of knowledge, and understand that scientific knowledge is not the only framework that populations use to interpret life phenomena⁽¹⁷⁻¹⁸⁾.

The data found in the examined TI showed that faith was a relevant dimension in the care of elderly people with DM. Expressing faith can be a way to soothe the distress related to the disease, especially in people that show some fragility originating in chronic health problems⁽¹⁹⁾.

The accounts indicated that the activities carried out by healers were considered a therapeutic practice, requested with the objective of controlling the disease in face of the impossibility of healing it with the resources offered by the biomedical model. These activities play the role of intervening between the sacred

and the human, in an attempt to heal the physical and the spiritual body, favoring well-being^(14,20). However, health professionals often ignore or play down these practices for classifying them as having an empirical nature⁽¹⁴⁾. These care practices are aligned with the population's culture, especially in the folk care subsystem⁽⁹⁾.

In the overlapping of the folk practices described in the TI, it was observed that elderly people with DM created their own care strategies based on sociocultural influence and their experience of living with the disease. It must be stressed that, to achieve comprehensive care in nursing, it is important to acknowledge the plurality of care practices adopted by elderly people to control DM, taking into account their local knowledge, as well as the knowledge of their relatives and the background found in social relationships, going beyond the pattern of the biomedical model or the professional care subsystem.

The findings showed that FHS is a reference in care, because it leads to the establishment of bonds with elderly people. It is an environment that favors comprehensive care of elderly people because of its closeness with this population and allows the formation of longitudinal and regular bonds as well as the insertion of elderly people into the SUS context⁽²¹⁾. Nevertheless, inefficiencies were cited, such as queues to schedule appointments in FHS and to obtain specialized care and problems in the establishment of priorities for the elderly population with DM. A study reported that elderly people showed dissatisfaction and anguish over the long queues they had to endure to schedule appointments⁽²¹⁾.

It must be emphasized that the weaknesses found in the TI related to appointments in specialized care pose challenges in face of the socioeconomic deprivations to which elderly people with DM are exposed. These patients require long-term care, which is often associated with financial expenses. That is, lack of resources put people in a more vulnerable social position⁽²²⁾. Many challenges have to be overcome when thinking of the quality of the assistance offered to elderly people in primary health care, and there is the need to improve comprehensiveness and family guidance and expand accessibility and working hours focusing on the care delivered to the elderly population⁽²³⁾. It must be emphasized that, in Brazil, priority care delivery is ensured to the population over 60 years by the third article of Law no. 10.741/03⁽²⁴⁾. Among elderly people, the oldest ones (those over 80 years) must have preference over other elderly people, except in emergence cases⁽²⁵⁾.

Community health workers were pointed out as important agents in the care process in the interaction with the FHS team. By means of home visits, these workers can notice the specificities involved in the way of life of each elderly person⁽²⁶⁾ and play a strategical role in health care of people with chronic diseases, because they can inform the professionals of the FHS team about the care needs of this population⁽²¹⁾.

Nurses were mentioned as professionals who participated in health education groups, established bonds, and carried out embracement to elderly people and, consequently, allowed access to health services in FHS. Bonds are a powerful tool in care and are based on the therapeutic relationship between patients and professionals over time. A similar characteristic is shared by embracement that takes into account health needs, becoming an important element that will organize access⁽²⁷⁾. Nurses help the FHS team to rethink care routines implemented to elderly people that live with a chronic

disease, committing to a comprehensive, equitable, multidisciplinary, and resolutive practice in health services (28) Nurses have a relevant function in the TI of elderly people with DM in primary health care, especially because they are part of the professional care subsystem and stand out in individual and collective activities related to health care. Therefore, this system will always be requested by elderly people or their relatives in case of need for DM follow-up.

According to the TI examined in the present study, the patients chose health services based on an evaluation of the severity of their condition rather than on the conventional flow established by health services. The same result was reported in a study that also analyzed TI. It identified that the trajectories in search of therapeutic resources did not match the flows determined by health services⁽²⁹⁾ or healthcare networks. Health education groups proved a therapeutic alternative that boosts self-care learning. By doing so, they increase safety and improve users' skills to manage their health problem, acknowledging the active role of elderly people with DM in the control of their chronic disease⁽³⁰⁾.

The present study showed that family is the main center of care of elderly people. A remarkable characteristic of the popular care subsystem is the participation of the family and the social network in care, determining the insertion in other subsystems in a lay way⁽⁹⁾. Care of elderly people with chronic diseases in primary health care is pervaded by the family sphere⁽²¹⁾ and, because of that, it is primordial that nursing professionals understand the relationships established in the family dynamics to organize and systematize care to people in this age group⁽³¹⁾. In contrast, one participant classified the attitude of some relatives to help her as an embarrassing situation, since it disturbed the patient's autonomy to seek the necessary resources.

It must be emphasized that contentious relationships are commonly present in family care, especially when elderly people do not want to feel dependent on their relatives and find themselves obligated to meet the desire of caretakers⁽²¹⁾. Relationships with neighbors favor care and social interaction. Neighbors play an important role in care of elderly people given that they resort to health services or get in touch with relatives if they identify something different when on-site family support is lacking⁽²¹⁾.

The feeling of finitude emerged in the interaction between old age and chronic disease, arousing the participants' desire to live longer with their family. Elderly people emphasized the importance of moving on with their life with serenity in old age, and creating favorable coping strategies with the social and family network⁽³²⁾. The characteristics of the TI indicated that elderly people are directly influenced and supported by their family unit and social relationships and, when necessary, they resort to other subsystems. Consequently, it is presumed that nursing has many challenges in the primary health care context when it comes to implementing care of elderly people with DM, especially regarding the conduct of taking into account family and cultural aspects that influence these patients.

Study limitations

The focus on health units located in urban centers hinders generalization of the findings to elderly people with DM who live in rural areas, which can be considered a limitation. Additionally, the study was carried out in a municipality with 100% FHS coverage, a reality that is not found in other regions of Brazil. The authors suggest that new studies be developed aiming to expand the examined setting and object to contribute to the construction of knowledge on this subject in nursing.

Contributions to the area

The present study contributes to the nursing practice in the primary health care context because it provides resources for professionals to deliver care to elderly people with DM. It must be stressed that people bring along a background of knowledge originating in the popular and folk care subsystems that goes beyond the professional one, including life stories and culture, that sometimes are ignored by health professionals. In addition, the practice carried out in primary health care must acknowledge the several therapeutic resources available in the folk subsystem and, from that, promote the integration of these resources with the professional subsystem, boosting care and people's autonomy, given that biopsychosocial and cultural aspects legitimate health practices.

FINAL CONSIDERATIONS

Describing the TI of elderly people with DM registered at FHS helps understand the potentialities and weaknesses of care of this population offered by the folk, professional, and popular subsystems. It should be emphasized that the professional subsystem showed potentialities regarding care, bonds, embracement, and health education groups oriented toward the elderly population. However, gueues were an obstacle to accessing health services. As a consequence, despite their socioeconomic vulnerabilities, elderly people needed to seek services in the private healthcare network. By considering the different care subsystems and their interconnection, it was possible to infer how elderly people with DM lived with the disease, what their coping strategies were, and how sociocultural aspects permeated them, which impacts the work developed in primary health care. From this view, it becomes clear that there are challenges to be overcome by SUS and professional care regarding efforts to propose care practices that consider elderly people with DM from the perspective of their cultural roots.

It must be stressed that, in the nursing area, professionals have to carry out a sensitive practice, in which the plurality of types of knowledge, beliefs, and cultures of elderly people with DM is acknowledged so therapeutic bonds are strengthened and relationships with the other care subsystems are developed, aiming to promote comprehensive care practices oriented toward elderly people's health.

REFERENCES

International Diabetes Federation (IDF). Diabetes Atlas [Internet]. 8nd ed. Brussels (Belgium):International Diabetes Federation; 2017 [cited 2020 Feb 10]. 150 p. Available from: https://www.idf.org/e-library/epidemiology-research/diabetes-atlas/134-idf-diabetes-atlas-8th-edition.html

- 2. International Diabetes Federation (IDF). Diabetes Atlas [Internet]. 9nd ed. Brussels (Belgium):International Diabetes Federation; 2019 [cited 2020 Feb 10]. 176 p. Available from: https://www.diabetesatlas.org/en/resources/
- 3. Fritschi C, Bronas UG, Park CG, Collins EG, Quinn L. Early declines in physical function among aging adults with type 2 diabetes. J Diabetes Complications. 2017;31(2):347-52. https://doi.org/10.1016/j.jdiacomp.2016.06.022
- Sinclair AJ, Rodriguez-Mañas L. Diabetes and frailty: two converging conditions?. Can J Diabetes. 2016;40(1):77-83. https://doi.org/10.1016/j. jcjd.2015.09.004
- 5. Alves PC. Itinerário terapêutico e os nexus de significados da doença. Rev Ciênc Soc Pol Trab [Internet] 2015 [cited 2020 Feb 24];(42):29-43. Available from: http://capacitasalud.com/biblioteca/wp-content/uploads/2017/05/ALVES-2015-Itinerarios Terapeuticos.pdf
- 6. Ministério da Saúde (BR). Portaria nº 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS) [Internet]. 2017 [cited 2020 Feb 12]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436 22 09 2017.html
- 7. Ministério da Saúde (BR). Portaria nº 2.528, de 19 de outubro de 2006. Aprova a Política Nacional de Saúde da Pessoa Idosa [Internet]. 2006 [cited 2020 Feb 12]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2006/prt2528_19_10_2006.html
- 8. Stopa SR, Cesar CLG, Alves MCGP, Barros MBA, Goldbaum M. Health services utilization to control arterial hypertension and diabetes mellitus in the city of São Paulo. Rev Bras Epidemiol. 2019;22:e190057. https://doi.org/10.1590/1980-549720190057
- 9. Kleinman A. Concepts and a model for the comparison of medical systems as cultural systems. Soc Sci Med. 1978;12(2B):85-95. https://doi.org/10.1016/0160-7987(78)90014-5
- 10. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ):a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007;19(6):349-57. https://doi.org/10.1093/intqhc/mzm042
- 11. Minayo MCS. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. Rev Pesq Qualit [Internet]. 2017 [cited 2020 Feb 15];5(7):1-12. Available from: https://editora.sepq.org.br/index.php/rpq/article/view/82/59
- 12. Bertolucci PHF, Brucki SMD, Campacci SR, Juliano Y. O mini-exame do estado mental em uma população geral: impacto da escolaridade. Arq Neuropsiquiatr. 1994;52(1):1-7. https://doi.org/10.1590/S0004-282X1994000100001
- 13. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14nd ed. São Paulo: Hucitec; 2014. 416 p.
- 14. Lima CAB, Lima ARA, Mendonça CV, Lopes CV, Heck RM. The use of medicinal plants and the role of faith in family care. Rev Gaúcha Enferm. 2016;37(spe.):e68285. https://doi.org/10.1590/1983-1447.2016.esp.68285
- Defani MA, Oliveira LEN. Utilização das plantas medicinais por diabéticos do município de Colorado (PR). Rev Saúde Pesqui. 2015;8(3):413-21. https://doi.org/10.17765/2176-9206.2015v8n3p413-421
- 16. Silva AB, Araújo CRF, Mariz SR, Meneses AB, Coutinho MS, Alves RBS. The use of medicinal plants for elderly users of a basic family health unit. Rev Enferm UFPE. 2015;9(suppl-3):7636-43. https://doi.org/10.5205/reuol.7049-61452-1-ED.0903supl201517
- 17. Acioli S, Kebian LVA, Dias JR, Corrêa VAF, Daher DV, Martins ALX. Scientific and popular knowledge in Family Health Strategies from a hermeneutic-dialectic perspective. Online Braz J Nurs. 2016;15(4):644-54. https://doi.org/10.17665/1676-4285.20165465
- 18. Lima MRA, Nunes MLA, Klüppel BLP, Medeiros SM, Sá LD. Nurses' performance on indigenous and African-Brazilian health care practices. Rev Bras Enferm. 2016;69(5):788-94. https://doi.org/10.1590/0034-7167.2016690504
- 19. Coulibaly A, Alves VP. As crenças religiosas e espirituais no enfrentamento de desafios advindos das feridas crônicas em idosos. Rev Kairós Gerontol. 2016;19(esp.):323-39. https://doi.org/10.23925/2176-901X.2016v19iEspecial22p323-339
- Marin RC, Scorsolini-Comin F. Desfazendo o "mau-olhado": magia, saúde e desenvolvimento no ofício das benzedeiras. Psicol Ciênc Prof. 2017;37(2):446-60. https://doi.org/10.1590/1982-3703002352016
- 21. Schenker M, Costa DH. Advances and challenges of health care of the elderly population with chronic diseases in Primary Health Care. Ciênc Saúde Coletiva. 2019;24(4):1369-80. https://doi.org/10.1590/1413-81232018244.01222019
- 22. Chen J, Jing X, Liu X, Volkmann AM, Chen Y, Liu Y, et al. Assessment of factors affecting diabetes management in the City Changing Diabetes (CCD) study in Tianjin. PLoS One. 2019;14(2):e0209222. https://doi.org/10.1371/journal.pone.0209222
- 23. Araújo LUA, Gama ZAS, Nascimento FLA, Oliveira HFV, Azevedo WM, Almeida Jr HJB. Avaliação da qualidade da atenção primária à saúde sob a perspectiva do idoso. Ciênc Saúde Coletiva. 2014;19(8):3521-32. https://doi.org/10.1590/1413-81232014198.21862013
- 24. Presidência da República (BR). Lei nº 10.741, de 1 de outubro de 2003. Dispõe sobre o Estatuto do Idoso e dá outras providências. Diário Oficial da União. 2003 out 03.
- 25. Presidência da República (BR). Lei nº 13.466, de 12 de julho de 2017. Altera os arts. 3º, 15 e 71 da Lei nº 10.741, de 1º de outubro de 2003, que dispõe sobre o Estatuto do Idoso e outras providências. Diário Oficial da União. 2017 jul 13.
- 26. Assis AS, Castro-Silva CR. Agente comunitário de saúde e o idoso: visita domiciliar e práticas de cuidado. Physis. 2018;28(3):e280308. https://doi.org/10.1590/s0103-73312018280308
- 27. Silva TF, David HMSL, Caldas CP, Martins EL, Ferreira SR. O acolhimento como estratégia de vigilância em saúde para produção do cuidado: uma reflexão epistemológica. Saúde Debate. 2018;42(spe4):249-60. https://doi.org/10.1590/0103-11042018s420
- 28. Silva LB, Silva PAB, Santos JFG, Silqueira SMF, Borges EL, Soares SM. Risk strata and quality of care for the elderly in Primary Health Care. Rev Latino-Am Enfermagem. 2019;27:e3166. https://doi.org/10.1590/1518-8345.2968.3166

- 29. Younes S, Rizzotto MLF, Araújo ACF. Therapeutic itinerary of patients with obesity treated in high-complexity services of a university hospital. Saúde Debate. 2017;41(115):1046-60. https://doi.org/10.1590/0103-1104201711505
- 30. Silva LB, Soares SM, Silva PAB, Santos JFG, Miranda LCV, Santos RM. Assessment of the quality of primary care for the elderly according to the Chronic Care Model. Rev Latino-Am Enfermagem. 2018;26:e2987. https://doi.org/10.1590/1518-8345.2331.2987
- 31. Aires M, Dal Pizzol FLF, Mocellin D, Rosset I, Morais EP, Pasjulin LMG. Cross-cultural adaptation of the Filial Responsibility protocol for use in Brazil. Rev Bras Enferm. 2017;70(6):1338-46. https://doi.org/10.1590/0034-7167-2016-0479
- 32. Ribeiro MS, Borges MS, Araújo TCCF, Souza MCS. Coping strategies used by the elderly regarding aging and death: an integrative review. Rev Bras Geriatr Gerontol. 2017;20(6):880-8. https://doi.org/10.1590/1981-22562017020.170083