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RESEARCH

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## Knowledge and Practices of Users With Diabetes Mellitus on Capillary Blood Glucose Self-Monitoring at Home

Conhecimento e Práticas de Usuários com Diabetes Mellitus Sobre a Automonitorização da Glicemia Capilar no Domicílio

Conocimientos y Prácticas de los Usuarios con Diabetes Mellitus en Sangre Capilar Glucosa Autocontrol en Casa

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### ABSTRACT

**Objective:** To analyze the knowledge and practices of users with Diabetes Mellitus (DM) on the capillary blood glucose self-monitoring (AMGC) held at home. **Methods:** descriptive-exploratory study with qualitative methodology, developed in April and May 2013, with users with DM in the public health system of an interior. The data were collected through interviews and categorial analysis verified the sample. The theme was selected by saturation of the speech totaling 12 DM users that perform AMGC at home. **Results:** the content analysis of data made it possible to identify three categories: realization of non-rational AMGC; The absence of educational programmes to steer on the realization of AMGC; Insufficient availability of inputs to users who perform AMGC. **Conclusion:** Despite advances legally reached by public policies, users with DM are unaware of the legislation and how it directly interferes in the conduct of AMGC's..

**Descriptors:** Knowledge, Blood Glucose Self-Monitoring, Diabetes Mellitus.

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## RESUMO

**Objetivo:** Analisar o conhecimento e as práticas de usuários com Diabetes Mellitus (DM) acerca da Automonitorização da Glicemia Capilar (AMGC) realizada no domicílio. **Métodos:** Estudo descritivo-exploratório, com metodologia qualitativa, desenvolvido em abril e maio 2013, com usuários com DM atendidos pelo sistema público de saúde de um interior pernambucano. Os dados foram coletados por meio de entrevistas e verificados por análise categorial temática, a amostra foi selecionada por meio da saturação do discurso totalizando 12 usuários com DM que realizam a AMGC no domicílio. **Resultados:** A análise de conteúdo dos dados possibilitou identificar três categorias: Realização da AMGC de forma não racional; Ausência de programas educativos para orientar sobre a realização da AMGC; Disponibilização insuficiente de insumos aos usuários que realizam a AMGC. **Conclusão:** Apesar dos avanços legalmente alcançados pelas políticas públicas, os usuários com DM desconhecem a legislação e como está interfere diretamente na realização da AMGC.

**Descritores:** Conhecimento, Automonitorização da Glicemia, Diabetes Mellitus.

## RESUMEN

**Objetivo:** Analizar los conocimientos y prácticas de los usuarios con Diabetes Mellitus (DM) de la glucosa en sangre capilar Self-monitoring (AMGC) llevó a cabo en casa. **Métodos:** estudio descriptivo exploratorio con metodología cualitativa, desarrollado en abril y mayo de 2013, con usuarios con DM en el sistema de salud pública de un interior. Los datos fueron recogidos a través de entrevistas y análisis categorial verificado que el tema de la muestra fue seleccionado por la saturación del discurso por un total de 12 DM usuarios que realizan la AMGC en casa. **Resultados:** el análisis del contenido de los datos permitió identificar tres categorías: realización de AMGC no racional; La ausencia de programas educativos para orientar en la realización de AMGC; Disponibilidad insuficiente de insumos a los usuarios que realizan AMGC. **Conclusión:** A pesar de los avances alcanzados legalmente por las políticas públicas, usuarios con DM desconocen la legislación y cómo está directamente interfiere en la AMGC de conducta.

**Descriptorios:** Conocimiento, Automonitorización de la Glucosa Sanguínea, Diabetes Mellitus.

## INTRODUÇÃO

Diabetes Mellitus (DM) is a chronic condition that requires continuous management, characterized by hyperglycemia caused by absolute and/or relative deficiency of insulin, interfering in the metabolism of glycogen, proteins, lipids, water, vitamins, and during Its evolution in dependence on metabolic control can result in acute and chronic complications.<sup>1-2</sup>

The most frequent forms of DM are type 1 diabetes mellitus (DM1) and type 2 diabetes mellitus (DM2), which corresponds to 5-10% and 90-95%, respectively, of the existing cases. DM1 occurs as a result of the destruction of pancreatic beta cells, with consequent insulin deficiency affecting predominantly children and adolescents, whereas DM2 is characterized by defects in insulin action and secretion, being more found in people over 45 years of age.<sup>2</sup>

Because DM is a chronic disease, it causes drastic changes in the life routine of the users, these changes are related to the activities developed daily, since from the discovery of the diagnosis can occur feelings of anguish and despair for the perception of loss in the control of the disease existing the Need for continuous professional follow-up to maintain glyceic control.<sup>3</sup>

Regarding the treatment of DM, the Self-Monitoring of Blood Glucose (AMGC) stands out as an integral part of the care of the users with DM, being considered an important strategy in the maintenance of the metabolic control. This procedure allows the individual to direct the actions that involve the treatment of diabetes, because through the obtained results it is possible to reassess the therapy established identifying the real needs of the users, with stimulus in the practices of self-care. In addition, the AMGC allows the construction of the glyceic profile that favors the knowledge about the attitudes of users with DM in the face of acute and chronic complications.<sup>2</sup> However, in order to achieve results from the AMGC, users need to possess sufficient knowledge to incorporate Self-care actions imposed to maintain metabolic control.<sup>3</sup>

Knowledge can be cited as a set of information that the individual needs to command to manage their health condition. However, knowledge alone is not sufficient to promote behavior change, since it is directly related to other variables, such as: schooling, diagnosis time, health and illness beliefs, family support, ease of access to health services, among other dimensions. However, there are still few studies that relate the variables with knowledge of the users with DM.<sup>3</sup>

Thus, in consensus with the recommendations of the American Diabetes Association and the Plan for the Reorganization of Attention to Hypertension and Diabetes Mellitus, on September 29, 2007, Federal Law No. 11.347 / 06, which Free distribution of drugs and supplies necessary for the application of insulin and monitoring of capillary glycemia in users with DM. In order to regulate this Federal Law, Ordinance No. 2,583 / 07 was created on October 10, 2007, which defines the list of drugs and supplies that must be made available by the Unified Health System (SUS).<sup>4-5</sup> In the implementation of these public policies, it is necessary that all the population have knowledge about the legislation, besides the responsibility of the health professional in offering a quality continuing education, seeking a reduction of the risks of aggravation of the disease, with reduction of costs arising from lack early detection.<sup>2,3</sup>

The AMGC as a fundamental part of the treatment reveals that for proper glyceic control the patient should be included in a health education program since the user must be prepared for immediate interventions against the results found, avoiding unacceptable complications.<sup>6</sup>

Understanding that the knowledge of the users that perform the AMGC is essential for an adequate follo-

w-up of the treatment, it is necessary that the health professionals are able to offer a quality education with a view to self-care, with a reformulation of professional practices and greater Investments in educational programs that provide the necessary tools for disease management. These tools are related to the information that allows the user to deal with situations in the day to day, coming from the AMGc such as the acceptance, the decision making against the results found, the correct use and disposal of the reagent tapes and the accomplishment of the procedure in an appropriate way With correct measurement times.

Considering the difficulties faced by day-to-day users of DM who perform AMGc, the present study aimed to analyze the knowledge and practices of users with DM regarding self-monitoring of the capillary glycemia performed at home, with the aim of adopting measures that prevent or reduce the complications resulting from diabetes mellitus and obtain a better glycemic control.

## METHODS

This is a descriptive-exploratory study, with a qualitative methodology, performed at the home of DM users who perform AMGc registered at the Municipal Health Department of an interior of Pernambuco. As a qualitative research, the criterion of representativeness of the sample for the closure of the data collection was not the numerical one, but the variability that allowed to cover the totality of the investigated problem, in its multiple dimensions, that is, the criterion was adopted Of speech saturation. The sample is considered exhausted or satisfactory when one obtains answers with depth to the established questions, in association with the repetition of the discourse by other interviewees.<sup>7</sup>

In this study, speech saturation was achieved with 12 interviews, provided by users of the health services that perform AMGc at home. Inclusion criteria established were: users with type I or II DM who undergo CAGG at the household of the age group above 18 years; Availability to participate in the study and accessibility of the home. Those with a mental deficit that interfered with their participation in the interviews were excluded.

The data were collected in the period of March and April of 2013. The data were collected by the researcher after the confirmation of the registration in the Municipal Health Department, which contained all the information regarding the distribution of the inputs and the location of the users' residences. The researcher in charge went to the home of the user who performs AMGc, where the invitation to participate in the study was invited. We used an in-depth interview of two items, the first of which is the characterization of the DM user who performs AMGc containing the sociodemographic variables (sex, age, schooling, family income, occupation) and clinical

variables (diagnosis time, treatment for Control of DM and presence of comorbidities), and the second regarding the following open questions: what information do you have about the self-monitoring of capillary glycemia at home ?; How did you get the meter? Do you participate in any educational group? What is your attitude towards the results? How is the receipt and disposal of the inputs used in the AMGc ?.

All interviews were performed individually, face to face, in a preserved environment and with adequate comfort conditions, with an average duration of 30 minutes, using a recorder, in order to guarantee the reliability of the recording of responses. In addition, we sought to identify in each interview beyond the analysis of the speech, non-verbal language, as well as the expressiveness of the gestures, the tone of the voice and the silences, being performed a unique experience of each participant.

To analyze the findings, we followed the steps recommended by the thematic categorical analysis of Bardin, 7 which advocates the dismemberment of a text in units and categories according to analog regroupings. The following steps were followed: pre-analysis, material exploration, treatment of results, inference and interpretation.

In the pre-analysis, an exhaustive reading of the empirical material was carried out with initial appropriation of the content, with subsequent selection of the most relevant parts of the material, configured according to criteria of representativeness, homogeneity and pertinence that constituted the units of meaning. At the end of this stage, these data were edited for analysis, followed by the second stage in which the data were coded and organized into categories, by means of the clipping of the sense cores in the speeches of the participants and in the last step, the data received treatment Valid and meaningful. In view of this, inferences and interpretations were made with the purpose of highlighting the main information found in the research and displaying them clearly.<sup>7</sup>

The research project was approved by the Research Ethics Committee of the Federal University of Pernambuco, under opinion 206.795, CAAE: 10176212.4.0000.5208, respecting the guidelines established in Resolution 466/2012 of the National Health Council of the Ministry of Health Health. The interviewees signed the informed consent form. In this study, the names mentioned in the speeches of the participants were replaced by fictitious names. Codes (E1, E2...) were used to designate each interviewee, respecting the principle of anonymity.

## RESULTS AND DISCUSSION

Of the 12 patients with DM who perform AMGc at home, 8 were men and 4 women, with a predominance of participants aged 50-69 years (9). In relation to the educational level, more than half had only completed

Incomplete Elementary School (7); Two others attended high school; Two users were illiterate and one had completed Full Higher Education. With regard to marital status, the majority were married or lived in a stable union (10). It was observed that a large part of the interviewees did not perform formal work activities only performing domestic services. The average household income was half to two minimum wages. Clinical variables showed that the majority had more than one comorbidity, especially arterial hypertension and dyslipidemia. Regarding the use of medications, five used insulin and the others used oral antidiabetics. Regarding the number of visits / year, it was obtained that 90% of the users performed one to two consultations per year.

Through the analysis of interviews with users with DM about their practice of AMGC, based on Law 11.347 / 06, the following categories were listed: (1) AMGC performance in a non-rational manner; (2) Absence of educational programs to guide the realization of the AMGC; (3) Insufficient availability of inputs to users who perform AMGC. These categories will be presented below.

#### **Category 1: Realization of the AMGC in a non-rational way**

The Ministry of Health in 2000 implemented the Plan for the Reorganization of Attention to Hypertension and Diabetes Mellitus. The main objective of this plan is to establish guidelines and goals for a reorganization in the SUS, with investments in updating the health professionals of the basic network, offering a diagnostic assurance and providing the patient's attachment to health units for treatment and follow-up, promoting Restructuring and expansion of quality and resolution services.<sup>8</sup>

The lack of knowledge about their rights of access to the public health service causes users with DM to perform the AMGC in a non-rational way, since, without proper follow-up by a competent health professional, the AMGC becomes Only an additional expense to the SUS and does not reach its primary goal of improving the glycemic control of those who perform it.<sup>9</sup>

I was able to get this device because a man who lives in the street above said they were distributing for free at the health department only had to make an appointment with the doctor that he released the requisition, I got the prescription went there [municipal health department] And I took it with the girl from the pharmacy and every month I go there to pick up the ribbons and I make the time that I want at home without needing anyone. (E1)

[...] the good thing is that I can do at any time of the day [AMGC], I just felt something I already run to know if it is altered, if I stop eating sweet and with an

hour I do it again if I delay Back to normal I do not eat dinner that day, there I see if it's good again. (E9)

The speeches of the participants reveal the lack of knowledge of the users about the real need to perform the AMGC as a primary tool in the control of the disease, and also clearly express that they do not know the appropriate times for the AMGC, since the Brazilian Society of Diabetes recommends that they be Performed at least 3 to 4 tests per day, and up to 8 tests may be used for specific adjustments according to diet and physical exercise.

In view of the above, it is necessary to ensure effective and efficient clinical attention, so that the user perceives the importance of follow-up by a qualified professional for self-care instruction in the AMGC, as well as to guide the fact that this Evaluation has a purpose that is to direct behaviors, adjust therapies, allow the user an ability to interpret the results obtained and present conscious and effective behaviors in the face of such results.<sup>1</sup>

In this direction the following statements highlight the perception that AMGC is a way to avoid going to the laboratory, and is still seen as a technique that can be performed without the need for more care:

*[...] it's too good to have the device at home I can pick it up at any moment, I'm doing the food I'm going to spend a lot of alcohol in the room to wipe my finger and do it on time, as a different thing I see is also the fact that To need to go to the lab fast is too bad to spend all that time waiting without eating. (E3)*

*Easy thing to do [AMGC], I think everyone who has diabetes must have a device like this at home, it helps our lives a lot, it does not need anything, just the needle stuck the finger put in the device, result is ready in the hour without worry and stress. (E5)*

In the face of such negligence, some users may underestimate the need for a qualified health monitoring, as can be seen in the following speech:

*When I got the phone there at the office I already knew how to do everything because my sister has been doing this for a long time, so the only problem the most difficult was getting the prescription with the doctor after he gives it ready, just pick up the office and start doing Knowing the correct value does not need anyone or be taking more in the laboratory, only picks up the reagent tapes every month. (E3)*

Federal Law No. 11.347 / 06, in its Article 3, states that users with DM must be enrolled in the Education Programs for people with diabetes, promoted by SUS health units.<sup>4</sup> In the meantime, in this study, all parti-

participants in the study Research, none are included in an Education Program as recommended by the legislation, however, all perform the self-monitoring of capillary blood glucose at home, thus violating the relevant legislation. As the following statement shows:

What training? Not my daughter! I was the one who picked up the phone in the office, and then I was doing it at home, then I was not going anywhere.(E4)

In view of this, it is imperative that there be an education policy in health aggregated or allied to the process of acquiring blood glucose monitors and inputs by users with DM, who seem to be unaware of the need for training to perform AMGC at home, since That the municipality in question does not offer a continuing education program. In this way, policies are planned, however, when in its implementation, the main factor for its effectiveness and effectiveness is not added: what is the knowledge about how to do, about what to do and about what to do. This gives continuity to a process of high costs, but that does not reach its main objectives.<sup>10</sup>

Therefore, for the proper accomplishment of the AMGC, it is necessary that the continuing education program be a priority as established by the legislation, before adhering to the distribution of glymeters for the population, since the health professional, when performing the follow-up of the user, will provide the tools Necessary for the user to acquire the knowledge essential for a CBA that results in improvement of the clinical condition of the same and thus prevent or minimize acute and chronic complications.<sup>11-12</sup>

## **Category 2: Absence of educational programs to guide the realization of the AMGC**

The metabolic control of DM is based on health education focusing on the self-monitoring of capillary glycemia, since this is essential for a periodic evaluation of the user.<sup>13</sup> The American Diabetes Association recommends that the AMGC at home should be performed in conjunction With an education program covering a range of all the factors involved in the process. From this partnership, the DM user will understand how changes in lifestyle should be made, greater discernment during treatment, and stimulate self-care practices.<sup>1,13</sup>

The Ministry of Health suggested the training of health professionals of the basic network in the Plan for Reorganization of Attention to Systemic Arterial Hypertension and Diabetes Mellitus, after an analysis of the professionals that carried out educational process with the users was perceptible to the lack of knowledge, besides the Lack of critical and emancipatory thinking of health professionals, revealing that there is no interactive

communication between professional and user, thus being detrimental to home self-care.<sup>8</sup>

In the interviews conducted, the following speech shows that the needs of the participants were not attended by the health professional, interfering in the adequate realization of the AMGC:

*I went there to pick up the device from the health department, and the woman who gave it to me told me in a superficial way how she used the device, but I've already forgotten [... laughs ...] she said too quickly she was in a hurry Because I think I had a lot of things to do, I do not know, but I do not know if she's an expert on this, because now she's like that, nobody cares anymore. Now she's a professional for the other toe for the finger of the hand. , But when I got home in the afternoon I went to the house of a colleague who also did there her son explained to me how I did, now I do it alone when I see that it is altered I already do.*

*[...] it is quite simple the woman delivers the device later at home I learned how to do, only sometimes I feel trouble the device does not work and the results coming out I do not know if the blood sugar is high or low [...] the woman who gives the device does not explain anything. (E1)*

Thus, there is a need to organize a continuing education program in a dialogical, reflexive and critical perspective, aiming at the construction of a training of the health professional with a critical awareness with understanding of the reality of the user, favoring autonomy for The self-care of the disease.<sup>14</sup> As the patients' statements show, they perform the AMGC at the desired time according to their perception and do not have knowledge to interpret the results, this interferes in the follow-up of their treatment, since the ideal in the AMGC Is the construction of a glycemic profile that provides information on capillary fasting glycemia, preprandial and postprandial, in order to obtain a better 24-hour glycemic profile.<sup>15</sup>

The absence of a continuing education program for DM users reflects misunderstanding about diabetes and how to get good control and even poor practice of some interventions. The implementation of education groups for users provides a source of information exchange, which includes individual and collective actions aimed at health promotion.<sup>16</sup>

The individual with DM should adopt self-care skills that allow him to control his illness, because the greater the access to information and the knowledge about his disease, the greater his apprehension will be able to carry out an intervention action in a competent way, instituting adequate control measures.<sup>17</sup>

In order for glycemic control to be effective, it is necessary for the DM user to participate in decisions, taking into account the users' level of knowledge, the type of diabetes they have and the correct use of materials and inputs. There is a need to record the results found for the construction of the glycemic profile. These recommendations are key axes for guiding appropriate treatment.<sup>12</sup>

However, the following statements show that the users with DM who perform AMGC, do not know the importance of the registry for the construction of the glycemic profile, which can be done by means of the annotation of the results found with the AMGC:

No, it stays in my mind when I go the other day to check I remember the previous result, but I do not write in any place, I do not know, I do not think I have a need since I have to take insulin every day anyway anyway, And the test is only to see if the glucose is high or low. (E1)

[...] sometimes I write down to take to the doctor, sometimes I forget, but then I remember and I record in the mind[...] (E9)

The registration of the results found in the AMGC should be done through forms for the construction of a glycemic profile, since it has been considered a reliable resource to obtain reliable accounts. The user with DM in recording self-monitoring results will be used to assess, establish or maintain behaviors, making them able to identify variables for appropriate treatment.<sup>11-12</sup>

In this perspective, it is necessary for individuals with DM to reflect on the disease and to discuss the treatment options, costs, risks and benefits involved in each of the available strategies, so that they can decide on the therapeutic pathways that best fit the disease. Adapt to their daily lives.<sup>17</sup>

### **Category 3: Insufficient availability of inputs to the users that perform the AMGC**

Currently in the market, there is a diversity of drugs, supplies and devices for DM control. The constitution of the legislation constitutes a set of norms and routines, which must be followed based on a critical thinking to adequacy of the pertinent measures to the users, so that they can carry out a treatment with quality.<sup>9</sup>

The disorganization with regard to the free distribution of medicines and supplies to the users with DM ends up making it difficult to conduct the treatment of the patient. There is a national interest in improving access to medicines, therefore, the National Medicines Policy has been organized through the publication of laws, ordinances, decrees, guidelines and programs, to regulate important aspects of Pharmaceutical Assistance,

among them, the forms of financing And drug delivery mechanisms.

In view of the above, it is worth mentioning Administrative Order No. GM / MS 4,217, of December 28, 2010, which approves the rules for the execution and financing of Pharmaceutical Assistance in Primary Care; GM / MS Ordinance No. 2,583, dated October 10, 2007, which defines the list of drugs and supplies made available by SUS to users with DM; GM Ordinance No. 371 of March 4, 2002, establishing the National Program of Pharmaceutical Assistance for Hypertension and Diabetes Mellitus, which is an integral part of the National Plan for Reorganization of Attention to Hypertension and Diabetes Mellitus and the Guidelines for structuring Pharmacies In the scope of the SUS.<sup>5,8,18</sup> However, in this survey 33.3%, users with DM are not regularly receiving the necessary inputs to control the disease, as shown in the following speech:

*For about three months I have not taken tapes at the Municipal Health Department, because I was missing, then I have to buy more is very expensive so reduce it, now I only do AMGC twice a week.(E4)*

According to article 3 of Law No. 11.347 / 06, the user with DM is assured, in case of delay in the dispensing of inputs and medicines request their rights with the municipal sanitary authority, if not available the municipality can not continue in the program since Does not provide the conditions necessary for assisted patients.<sup>4</sup>

When talking about compliance with legislation, it does not only mean building and following norms, ordinances or laws, but putting into practice the appropriate teaching for each individual, so that social participation occurs, with the purpose of autonomy of these users and thus can search for available resources consciously.<sup>9</sup> In this sense, the assistance model to be effective must guarantee universal and free access, through an intersectoral articulation between the public services and other entities and organizations of the civil society, guaranteeing quality in the services, As well as in reducing health inequities.<sup>4,19</sup>

Although health is constitutionally recognized as a duty of the State, and there are laws, ordinances and policies that guarantee the population information on the distribution of inputs for DM control, there are still cases where this right is not, for some reason, made effective. One of the justifications of the State for not guaranteeing this right is the unavailability of financial resources; However, health inequities related to resources go beyond their scarcity, because in Brazil, more vulnerable groups are directly affected by poor management in the distribution of these resources.<sup>20</sup>

Health as a right still requires the State and society to incorporate the need to broaden the conception of

the health and disease process. In this context, the logic would be to have access to health without barriers with guaranteed medicines and inputs as determined by legislation. However, for society to have the right to health it is necessary to extrapolate and break with the conception of health as simply absence of diseases.<sup>9</sup>

In this direction, although the user has the glycosimeter in the home to perform the AMGC, but lack information on how to acquire the reagent tapes, consequently end up not doing the AMGC according to the medical prescription:

*I bought the tapes every month, but my daughter got sick for about three months that I'm spending with her, it's very spent here at home, there I did not buy, but the tapes still have a few of the ones I bought there. I do it once or twice a week ... the doctor went to do it every day but I do not have conditions but it's just like that daughter né slap a hole to find another [...] ah I did not know I had the secretariat either Tell me what to get there so it's good that I get it and I keep it at home. (E12)*

Thus, when thinking about access to public policies in the SUS, it is necessary to identify the level of knowledge that users have about their rights, and this affects the ways and possibilities of how the population has access to health services. The lack of information from users with DM makes AMGC more difficult, needing to construct education groups, showing that every citizen has the right to be cared for by a team, in an integral and resolute way, with therapeutic care projects that are in solidarity with the demands and/or users, as well as producers of co-responsibility and autonomy or self-government on the part of those involved in this process, as in the case of the AMGC.<sup>1,9</sup>

Thus, in order to access health services, it is necessary for users to understand and assimilate their rights, and this affects the forms and possibilities of access to the services and inputs offered by the public system.<sup>9</sup>

In relation to the insufficient distribution of inputs, the following speech shows the interviewed user's perception of how the information was provided.

*They (health care professionals) at the office say they do not have them, I ask when they will arrive but they never know how to inform, they have to go there often ask if they arrived, but it's been three months since I went there to get tape And nothing a person to go in a place without giving prediction of when it will get there is too much, they think that we are a bunch of unemployed but when it is in election time everyone wants to vote, that is why I do not vote but In no one because now that I'm needing no one helps me I ask if I can pick it up in another place and they tell me not*

*only if I buy, but it's too expensive for me to buy, then my daughter ready I'm waiting until today waiting. (E9)*

SUS requires, in the organization of health services in Brazil, the existence of an articulated healthcare network where all service users have the right to information and to the supplies made available according to the legislation.<sup>21</sup>

The population's access to the network must occur through a gateway, that is, in order for health actions to take place, it is necessary to establish a first contact between the user and the health professional. In a quality care, it is important to report that health professionals are a factor influencing considerably the search of the users by the health services.

Given this, health professionals should have the profile and be qualified to meet and solve the main problems that users demand, for this purpose there is a need for professionals to know the reasons that facilitate or hinder the service to the user in the health service, In this way the user will be served in all their needs.<sup>1,21</sup>

The fact that the study was developed in a specific reality limits the generalization of the results and reinforces the idea that the description should occur in different regions and Brazilian populations.

## CONCLUSION

It is concluded that the users of health services with DM who carry out AMGC are not aware of their rights. This fact hinders their access to materials and supplies necessary for the control of the disease. Despite advances legally achieved by public policies, these users do not have enough information to adequately carry out the AMGC. It is necessary to emphasize that health professionals must be able to offer a quality care according to the individual needs of the users, to ensure a follow-up that provides an improvement in the quality of life beyond the reduction of possible complications.

Therefore, in this process of awareness, there is a need for the user to participate in an education program to know what to do in the various situations that require self-monitoring of capillary glycemia. Thus, health professionals need to be aware of the benefits of legislation, which goes beyond the free distribution of inputs, glucose meters and drugs on a regular and equitable basis for all DM users.

The results systematized by the present study show that the AMGC is not in accordance with the legislation either due to the lack of knowledge of the users or the limitation of access to the professionals for a quality monitoring. Therefore, it is necessary to have quality continuing education, whose public policies are effective and not merely illustrated, since above all there is the quality of life of the client with access to public health services without restrictions, with the guarantee of adequate assistance of According to their needs,

so investments are recommended in educational programs for professionals and users who perform AMGC at home.

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