



## DIABETIC PATIENTS' PERCEPTION OF SELF-CARE

### *Percepção de pacientes com diabetes sobre o autocuidado*

### *Percepción de pacientes con diabetes sobre al autocuidado*

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#### ABSTRACT

**Objective:** To analyze the diabetic patients' perception of self-care. **Methods:** Qualitative study, carried out in a diabetes and hypertension referral center in Fortaleza, Ceará, Brazil, in the period from February to June 2016. The sample consisted of 12 patients diagnosed with type 2 diabetes who attended the meetings of the Social Responsibility Program. For data collection, a focus group was carried out, followed by the thematic analysis, thus emerging four categories: acquisition of healthy life habits; eating and physical activity allied to diabetes management; continuous adherence to medication for prevention of injuries; and daily care with diabetic foot prevention. **Results:** It can be understood, through the reports, that there is development of awareness based on the practice of education and health presented by the participants linked to the program. The patients expressed to the group the importance of their awareness of the essential care procedures for management of diabetes, highlighting good health practices, such as: a balanced diet, the regular practice of physical exercises, non-abandonment of medication therapy, and foot hygiene and care. **Conclusion:** The study found that the Social Responsibility Program gave rise to changes in life habits, considering the practice of health education fundamental to the diabetic patients' perception.

**Descriptors:** Perception; Diabetes Mellitus; Health Education.

#### RESUMO

**Objetivo:** Analisar a percepção de pacientes com diabetes mellitus sobre o autocuidado. **Métodos:** Estudo qualitativo, realizado em um centro de referência em diabetes e hipertensão em Fortaleza, Ceará, Brasil, no período de fevereiro a junho de 2016. A amostra foi composta por 12 pacientes com diagnóstico de diabetes mellitus do tipo 2, que frequentavam os encontros do Programa de Responsabilidade Social. Para coleta de dados, realizou-se grupo focal, seguido da análise temática, emergindo quatro categorias: aquisição de hábitos de vida saudáveis; alimentação e atividade física aliadas ao controle do diabetes; uso contínuo de medicamentos na prevenção de agravos; dia a dia nos cuidados com a prevenção do pé diabético. **Resultados:** Pode-se compreender, por meio dos relatos, que há um desenvolvimento da conscientização embasada na prática de educação e saúde apresentada pelos participantes vinculados ao programa. Os pacientes expressavam para o grupo a importância da sua conscientização em relação aos cuidados essenciais para o controle da diabetes, destacando boas práticas de saúde, tais como: uma alimentação balanceada, a prática regular de exercícios físicos, o não abandono do tratamento medicamentoso e a higienização e o cuidado com os pés. **Conclusão:** Constatou-se que o Programa de Responsabilidade Social proporcionou mudanças nos hábitos de vida, considerando a prática de educação em saúde fundamental na percepção dos pacientes diabéticos.

**Descritores:** Percepção; Diabetes Mellitus; Educação em Saúde.



## RESUMEN

**Objetivo:** Analizar la percepción de pacientes con diabetes mellitus sobre el autocuidado. **Métodos:** Estudio cualitativo realizado en un centro de referencia en diabetes y hipertensión de Fortaleza, Ceará, Brasil en el período entre febrero y junio de 2016. La muestra fue de 12 pacientes con el diagnóstico de diabetes mellitus tipo 2 y que frecuentaban a los encuentros del Programa de Responsabilidad Social. Se realizó grupo focal para la recogida de datos y en seguida el análisis temático emergiendo cuatro categorías: adquisición de hábitos de vida saludables; alimentación y actividad física asociadas con el control de la diabetes; uso continuo de medicaciones para la prevención de agravios; día a día con los cuidados para la prevención del pie diabético. **Resultados:** A través de los relatos se pudo comprender el desarrollo de la concienciación basada en la práctica de la educación y la salud presentada por los participantes con vínculo en el programa. Los pacientes expresaron para el grupo la importancia de su concienciación sobre los cuidados esenciales para el control de la diabetes, destacando las buenas prácticas de salud, tales como una alimentación balanceada, la práctica regular de ejercicios físicos, el no abandono del tratamiento medicamentoso y la higienización y el cuidado con los pies. **Conclusión:** Se constató que el Programa de Responsabilidad Social ha proporcionado cambios en los hábitos de vida considerando la práctica de educación en salud fundamental en la percepción de los pacientes diabéticos.

**Descriptor:** Percepción; Diabetes Mellitus; Educación en Salud.

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## INTRODUCTION

According to the National Health Promotion Policy (*Política Nacional de Promoção da Saúde - PNPS*), health promotion is characterized by a set of actions that resignify the way of producing health, whether individually or collectively<sup>(1)</sup>. PNPS was established by the ministerial order MS/GM No. 687 of March 30, 2006 and reaffirmed Brazil's commitment to the expansion and qualification of health promotion actions by means of the Unified Health System (SUS); it was added to SUS managers' agenda and to the following National Health Plans, thus expanding the perspectives of the existing public policies<sup>(1)</sup>. Therefore, PNPS is committed, through the principles of autonomy and empowerment, to providing subsidies so that the individuals involved can be co-responsible for their health<sup>(1)</sup>.

Thus, health promotion actions represent the main strategies for coping with chronic noncommunicable diseases (NCDs), among them, diabetes mellitus (DM)<sup>(2)</sup>. This disease is characterized by high mortality and morbidity rates, and for being a risk factor for disorders affecting the cardiovascular system. It is believed that there are approximately 415 million individuals worldwide with DM, of whom approximately 193 million are unaware of the disease. It is estimated that, in 2040, there will be 642 million people with diabetes<sup>(3)</sup>.

In Brazil, the number of people diagnosed with diabetes has risen by 61.8% within a decade, and women prove more affected than men. Among the Brazilian capitals, Rio de Janeiro and Boa Vista were the ones with the highest (10.4%) and the lowest (5.3%) prevalence, respectively. Meanwhile, Fortaleza, the capital of Ceará, had a prevalence of 8.2 diagnosed cases. It is also observed that this disease is most frequently present in the age group of 65 years or more and with less schooling. This fact is justified by the growing increase in population aging and the low level of schooling associated with lower purchasing power<sup>(4)</sup>.

Cases of diagnosed obesity and hypertension have increased as a consequence of the increased number of people with diabetes, that is, an epidemic of chronic noncommunicable diseases (NCDs) is occurring in the population, mostly because of poor lifestyle habits, sedentary lifestyle and lack of preventive education<sup>(5)</sup>.

Thus, patients with diabetes and their relatives should participate in nutrition education programs since the discovery of the disease, discussing the importance of self-care, rendering them independent in regard to the decisions and attitudes related to diet and metabolic control. Through this knowledge, the patient will be able to know the influence of foods on their glycemia, and to act in the prevention of complications as well<sup>(6,7)</sup>.

DM is characterized as a syndrome of multiple etiology, resulting from complete or partial lack of insulin and/or from the inability of this hormone to adequately exert its effect on the body. It presents comorbidities associated with acute or chronic aggravations and, according to the time of diagnosis, chronic hyperglycemia accompanied by metabolic alterations<sup>(3,8,9)</sup>.

During the monitoring of patients with diabetes, low adherence to the treatment is evidenced, which becomes a challenge for health professionals, who seek to establish strategies to reduce this occurrence. In this perspective, adherence to treatment corresponds to following health professionals' recommendations and adopting healthy behaviors<sup>(10)</sup>.

In this regard, health education is considered an important strategy for promoting the health of patients with diabetes through the stimulation of self-care, as it develops awareness of the disease and makes the ones involved the protagonists of the care they must take in order to gain control and reduce aggravations. The patient gains autonomy so that, by themselves, they manage to perform healthy life habits in their routine, thus contributing to maintain their well-being<sup>(11)</sup>. In this sense, the relevance of this study is due to the importance of investigating the acquisition of knowledge of self-care by patients diagnosed with diabetes, who took part in a health education program. The results will contribute to the strengthening of health promotion, with a focus on the self-care in diabetic patients, for proposition of educational strategies and the consequent reduction in the comorbidities resulting from the disease.

Therefore, this study was aimed at analyzing the diabetic patients' perception of self-care.

## METHODS

A qualitative study<sup>(12)</sup> was carried out at the Integrated Diabetes and Hypertension Center (*Centro Integrado de Diabetes e Hipertensão - IHRC*), a unit of the Health Secretariat of the State of Ceará, located in the city of Fortaleza, Ceará, Brazil, from February to June 2016. The ICHR is part of the secondary level healthcare network and is a referral service for prevention and treatment of patients with diabetes and hypertension who reside in the capital and inland areas of the state.

Twelve patients diagnosed with type 2 diabetes attended the meetings of the Social Responsibility Program "Awakening Health: Mind, Body and Movement - perspectives on active aging".

The Social Responsibility Program has been in operation since 2006 and is a group open to patients who are provided with care at the CIDH Physiotherapy department, every two weeks, through group dynamics, circles of conversation, workshops and oral presentations. It is coordinated by the physiotherapist of the institution, and the participants are students of the Physiotherapy, Pharmacy and Psychology graduation programs of a private university of the same municipality, in addition to guests who articulate the theme of each meeting.

In a multidisciplinary approach, professionals of the Physical Therapy, Pharmacy, Psychology and Nursing areas were invited and took part in the meetings, during eight workshops, addressing the following themes: physical activity, body hygiene, medication adherence, diet, foot care, and body image.

Patients with type 2 diabetes mellitus, ranging from 59 to 80 years old, who participated in at least 80% of the Social Responsibility Program meetings, were included, and the patients with pre-established diagnosis of psychiatric disorders or those who were absent due to travel or illness were excluded.

A total of 48 patients composed the study population, closing the sample with 12 participants, which is one of the focus group criteria<sup>(13)</sup>, based on the guiding questions that addressed the themes being discussed during the Social Responsibility Program: "In what way has the participation in the meetings of the CIDH Social Responsibility Program contributed to changing habits and changing life?; How have the meetings influenced the diabetes management?; How do you see, in terms of importance, the influence of orientations made by health professionals such as the physiotherapist, the nurse, the nutritionist, the psychologist and the pharmacist, on the management of diabetes?; Does physical activity influence the improvement of physical status?; Does good body hygiene influence diabetes?; In what way does adequate nutrition interfere with diabetes?; Which diabetic foot care habits do you follow?; Which health changes have been attained through adherence to medication?"

The participants were asked to fill in a questionnaire on sociodemographic profile (age, sex, civil status, income, schooling, religion and occupation). The focus group was held in a small reserved auditorium, preserving the participants' secrecy and anonymity. Letter "P", which stands for "participant", was used for identification in this research, using numbers from 1 to 12 to classify the order of the speeches, respecting the ethical aspects of the research. The speeches were recorded and filmed using a mobile device.

The information was analyzed through the thematic analysis<sup>(14)</sup>, which consisted of three stages, of which the first is the pre-analysis, composed of inspectional reading, selection of documents and formulation of hypotheses and objectives. The second stage consists in exploring the material, and the third one is the treatment of the results obtained and interpretation. The analysis was also conducted following a theoretical model used in research with the elderly population<sup>(15)</sup>.

After the analysis, four categories emerged: acquisition of healthy life habits; eating and physical activity allied to diabetes management; continuous adherence to medication for prevention of injuries; and daily care with diabetic foot prevention.

It is noted that the project was approved by the University of Fortaleza Ethics Committee for Research with Human Beings, under Approval No. 1.666.684.

## RESULTS AND DISCUSSION

For presentation and discussion of the results, we chose to present the data regarding the sociodemographic profile of the participants. Next, each of the emerging categories were addressed and presented in details.

### Sociodemographic profile of the interviewees

Of the 12 patients who participated in the focal group, eight were women, ten were married, seven had monthly income of two to three minimum wages, seven had only elementary education, ten were Catholic, and seven were retired. The age ranged between 59 and 80 years.

In the reports, behavioral aspects of the interviewed patients, which interfere with health care, were identified through the categories presented: acquisition of healthy life habits; eating and physical activity allied to diabetes management; continuous adherence to medication for prevention of injuries; and daily care with diabetic foot prevention.

### Acquisition of healthy life habits

This category shows how the program interfered positively with the changes that occurred in the lives of people with diabetes after attending the meetings. It should be emphasized that the multiprofessional team of this research was always focused on PNPS observation with their patients. It is worth emphasizing that, among the specific objectives of the PNPS, stands the promotion of empowerment for decision-making capacity and the autonomy of subjects and the community, by enhancing personal aptitudes and capacities related to the promotion and defense of health and life<sup>(1)</sup>.

Thus, the social program appeared as a beneficial factor, considering that it contributed with useful information to the learning process and, consequently, to changes in the participants' habits. Furthermore, in line with the PNPS, it promoted the empowerment for them to gain autonomy in their actions, as observed through the participants' statements about the program:

*"It has changed our type of being, the way we eat, it has to change. The exercises that we can not skip doing, it has only improved our lives." (P1)*

*"(...) The food, the interaction with one another, every day that I come here I learn much more, I find it very nice. And as regards the explanations on the medication, the medicines and the pharmacy, for me they have brought a lot of changes, it's been great." (P2)*

*"This is very important, because it reminds you, it brings back things that the doctor says and we forget, not because we intend to (...) But it's a way to remind us, to spark our interest, our participation, for our health. It is very important, indeed. And like this, we become aware and change for real." (P3)*

Corroborating the findings of this research, an educational intervention in diabetes carried out at a Estoril School Health Center in São Paulo, Brazil, found that patients with diabetes who joined health education have raised the level of knowledge of the disease in relation to those who did not participate, representing the effectiveness of these actions<sup>(16)</sup>.

Another study in Belo Horizonte, Minas Gerais, Brazil, mentions that the patients with this disease started the educational program with limited knowledge and care in the DM management, but the involvement with the program made behavioral changes possible. As a result, participants with greater time of participation had better records in daily self-care<sup>(17)</sup>.

In respect to the habits that the participants of the present study had, and which have changed in their day-to-day life, they emphasized the diet, the acquisition of personal care and the physical activity. This behavioral change goes beyond the body itself, expanding to the physical and household environment, where each detail gains relevance in the new lifestyle. One can exemplify this conjecture through the lines:

*"The way one eats, how to care for oneself and care for the feet." (P1)*

*"I started to change, but I've really changed. We've learned a lot, how to cut our toenails, be careful, cleaning, applying some lotion, really a blessing (...) We do the activities, the exercises; sometimes we forget to do them, but we try, see?!" (P4)*

*"Of the cleaning, taking care of the body and also the foods, and the house as well. Many things." (P2)*

*"I have my own towel to wipe my foot (...) my hair, I wash it every day." (P8)*

A study carried out with 16 elderly people in Maringá, Paraná, Brazil, highlights the importance of educational actions. After these actions, the patients realized the importance of taking care of their health and felt more stimulated for changes of habit in the diet and in the practice of physical activity<sup>(18)</sup>.

The Social Responsibility Program developed at the CIDH in Fortaleza, Ceará, Brazil, provides participants with activities to prevent and promote health. According to participants, skincare is also necessary as this serves as a "barrier" against external microorganisms. In this aspect, a study of 212 patients with diabetes evidenced that there are three common dermatological complications caused by the absence of skincare: xeroses, onychomycosis and fissures<sup>(19)</sup>.

### **Eating and physical activity allied to diabetes control**

In this category, participants cite the food they consume, discuss the price of food and evidence the time and the practice of physical exercise, especially aerobics, emphasizing the combination of physical activity and good nutrition as essential for good health.

Here, in this theme, the aim was to focus on priority themes of PNPS evidenced by health promotion actions, such as adequate and healthy food, which includes promoting actions related to adequate and healthy food, aiming at health promotion and food and nutrition security<sup>(1)</sup>. It also addressed the issue of bodily practices and physical activities, which includes promoting actions, counseling and dissemination of bodily practices and physical activities<sup>(1)</sup>.

On this subject, participants attributed to the withdrawal of food from their diet, such as rice, beef and other, thus occurring the glucose decrease, as exemplified in the statements:

*"My diabetes is under control. My blood glucose level today was 101 and before it used to be at 250... 190... Then I quit eating rice, the levels is 96 ... 85 ... Today, it was 101, thanks God." (P5)*

*"Mine is controlled [...]. I went to the doctor [...] and she said: Did you eat beef? I replied: No, ma'am. She: Well, do not eat it! Eat lettuce, tomato, leaf, fish, chicken. And my blood glucose is almost under control. Yesterday, my blood sugar level was 73, it's always below 100." (P6)*

On the other hand, a study carried out in Montes Claros, Minas Gerais, Brazil, showed that the guidelines recommended by professionals of a health education program were scarce, since patients with diabetes still lacked knowledge of adequate nutrition, requiring an individual follow-up<sup>(20)</sup>, which shows that group work is relevant, but there is also a need for individual consultation, respecting uniqueness of every individual.

The intake of healthy foods contributes to a decrease in the glycemic index and the overall glycemic load of the diet. Thus, it should be noted that a higher amount of carbohydrates in the diet, such as rice, does not lead to glycemic control<sup>(21)</sup>.

When asked about healthy eating, they cite fruits and vegetables as preferences:

*"Well, I eat vegetables, fruit and soy milk." (P2)*

In this perspective, a study with 30 elderly people with diabetes in Porteiras, Ceará, Brazil, shows an opposite reality of eating habits, since, despite observing the daily fruit consumption, there was a low intake of vegetables and natural juices<sup>(22)</sup>.

Food is usually prepared by the participants, given the high cost of processed foods for these patients, as shown in the statements below:

*"In my home, I'm the one who prepares it." (P4)*

*"Because diabetes diet is very expensive, I don't earn much, I take a lot of medicines. [...] I spend four hundred reais in medicines every month, almost as much as I earn, so I eat according to my little problems and my financial conditions." (P1)*

One study pointed out that low-income Brazilians have difficulty eating correctly and providing themselves with balanced nutrition, according to the national recommendations, while middle-and high-income people spend much of their money on unhealthy foods<sup>(23)</sup>.

Other research with elderly people attending the Elderly Care Center in Sairé, Pernambuco, Brazil, shows that the level of knowledge about diet and DM was adequate, but it was observed that socioeconomic and cultural aspects may interfere with adherence to nutrition therapy, or with food preferences<sup>(24)</sup>.

It stands out the importance of health professionals' knowledge of the difficulties faced by the users and the need to adapt actions to promote healthy eating, considering that a study, carried out in Pelotas, Rio Grande do Sul, Brazil, highlighted the difficulties faced by the participants in following a healthy diet, namely: the high cost of healthy food, the low willpower, the obligation to avoid types of food considered banned and the lack of time and knowledge<sup>(25)</sup>.

It was identified the practice of physical activity, such as social activities developed by firefighters in gym equipment available in the squares, and greater motivation and dissemination by means of community programs, as follows:

*"I go walking, do stretching, I play, I do all that I'm allowed to and a bit beyond." (P5)*

*"I exercise using that outdoor gym equipment." (P3)*

*"My apartment is almost a gym, because the grandchildren go there and we jump rope, do karate, do all kinds of exercise." (P8)*

With this, the exercises practiced moderately are able to improve glycemia control and contribute to reduce renal complications. It was found that performing physical exercises three times a week for three months was sufficient to evidence significant changes in pathophysiological aspects<sup>(26)</sup>.

The amount of physical activity was also mentioned in the speeches through the satisfaction with the inclusion of exercise in the daily routine, and only one participant reported not going walking because of knee pain.

*"I've been doing physical activity for about three to four years." (P1)*

*"(...) I have been doing physical activity for more than 30 years." (P8)*

*"For about 15 years or more I've been doing physical activity, I walk, and I exercise using the ball." (P7)*

It is necessary for society to remain active, minimizing risks for physical limitations, since the practice of physical exercise promotes the reduction in the glycemic index, when guidelines on adequate duration, intensity and resistance are followed<sup>(27)</sup>.

### **Continuous use of medicines for injury prevention**

In this category, participants explain that they are careful about the correct intake of their medication. However, unpredictable situations, such as the lack of medication in the pharmacies, were reasons that caused discontinuation of treatment.

It was found that all of them were taking the medication correctly and being careful to follow the indicated timing, taking them at intervals of 10 minutes between one and the other, and especially with discipline to take them daily. Reinforcing that the patients reported making use of their medicines, there is the following speech:

*"Not only the medication, but insulin as well. I have never quit the medicine." (P1)*

Contrary to the research findings, a study of 142 people with type 2 DM in the inland area of Minas Gerais, Brazil, showed that 66 (46.5%) patients reported using medication at times; 49 (34.4%) patients reported never forgetting it; 13 (9.1%) almost always forgetting it; seven (4.9%) rarely forgetting it; two (1.4%) frequently forgetting and, finally, five (3.6%) reported always forgetting it. Therefore, knowledge of the associated risks and the need for regular use of medications, as well as the control of disease manifestations, is indispensable<sup>(28)</sup>.

On the other hand, other participants reported not taking the medication correctly due to the lack of medicine in the pharmacies, both the private ones and those in the primary healthcare units. In this regard, one can highlight:

*"My husband spent about two to three days without taking the medication, because it was not available in the pharmacies, and I went to several pharmacies and they lacked it." (P2)*

*"Even because the diabetes medication is like this: if we take it right, diabetes will be under control; otherwise, if you mess it up, so it will be. Diabetes gets decompensated and the person doesn't realize why." (P1)*

It is important that policies and programs act as a form of continuing education, developing strategies essential to address any disruption in the distribution of medicines. In this sense, a cross-sectional study was conducted in the

Southeast region of Brazil, with 423 interviewees, in which 357 of the patients presented adherence to the treatment. With this, 84.4% showed adherence to the drug treatment, 58.6% presented adherence to physical exercise and 3.1%, to the dietary plan. It was pointed out that irregularities in the treatment can give rise to glycemic imbalance. However, patients with more than 10 years of diagnosis presented greater adherence to drug and nutrition therapy, and to exercising. Therefore, these individuals show greater level of knowledge and awareness and, in the absence of some component of the treatment, strategies are developed to replace the missing component, such as food and exercise<sup>(29)</sup>.

### Day-to-day care in the prevention of diabetic foot

In this category, the patients demonstrated several ways of caring for the health of their feet and even highlighted the participation of family members, who collaborate on these care procedures.

On this topic, the participants demonstrated taking the necessary actions for prevention of injuries, being participative in reporting their experiences in day-to-day care, as in the lines:

*"I ask my daughter-in-law to do this, because my body does not reach my feet. I don't file them, I don't cut them, even to wash them I put them like this (showing that the foot is raised and supported on a chair)." (P1)*

*"I use the brush, the nail file, that smoothest one, but then, for myself, I can't do it. And on days when she (daughter-in-law) is not here, I pick up the brush, I wash my nail there, I dry it, I raise my foot somewhere, because my body can't." (P1)*

*"I wash them, hydrate them, cut the nail, every day." (P8)*

*"I clean them, brush them, I use the sandpaper to remove that crusty skin." (P4)*

*"You can not apply lotion between your fingers. It causes mycosis." (P1)*

It is important to emphasize the need for family and friends support for the person with diabetes, since this participation helps both in the emotional aspects and in the management of proper care for blood glucose level control<sup>(30)</sup>.

Such precautions are essential for the prevention of foot injuries in diabetics but a study on foot self-care, carried out with 331 type 2 diabetic patients, showed that only 128 examined their feet, 96 examined the shoes before wearing them, and 135 dried the interdigital spaces after washing the feet 5 to 7 days in a week. Such attitudes, when performed daily, reduce the risk for complications<sup>(31)</sup>.

The present study confirms that the adoption of health education programs presents beneficial results, as it reveals a reality different from that portrayed by the epidemiological indicators. The participants were able to realize the importance of balanced diet planning, which should be taken as priority in all programs aimed at individuals with DM<sup>(6)</sup>. Thus, it is reinforced that health education strategies encompass actions in operating groups, workshops and lectures. Food is directly related to psychosocial and cultural issues and, therefore, it is relevant to introduce such considerations into the educational process<sup>(9)</sup>.

As a possibility and strategy to subsidize action plans, it was possible to understand, while conducting the research, that the relationship between education and health is essential for aspects that go from the low schooling to diagnosis and treatment. In this sense, education is a key element for modification of this context, seeking the development and transformation in health. Based on this program, it was possible to identify and elaborate a plan perceived as essential for the treatment of patients with diabetes. This plan is conceived as four essential moments in assimilation with the four pillars of education<sup>(32)</sup> in order to reshape the patient's health.

In the first moment, the transmission of "knowledge" is highlighted as a fundamental element to overcome in the absence of health education. At this point, it is important to set the motivation, taking into account the possibility of treatment discontinuity by the patient. Thus, all information is provided, concerning the disease and the treatment related to the integration movement of the biopsychosocial model.

In the second moment, the "practice" through the knowledge obtained is highlighted, in order to modify the disease scenario, reshaping the search for health promotion. In this, patients practice the guidelines transmitted, initiating behavioral changes intended for prevention and health promotion.

In the third moment, the "coexistence" with the previously established process was identified, elaborating awareness under the new attitudes that enable health. This provides self-esteem, motivation and new incentive in health care. These characteristics are perceived through the reasoning in the search and continuity of the treatment through by means of strategies to deal with adverse difficulties.

In the fourth moment, one can detect the continuous movement that integrates the moments previously mentioned in the search for the updating and development of the “being”. This is a continuous process, in which the individual seeks the meaningful transformation of factors perceived as unfinished. Thus, it is emphasized that these processes will enable, in a significant way, the benefits for the patients’ health.

Finally, the present study presented limitations, such as the difficulty encountered by the researcher in creating a bond with the participants, due to unattendance at the biweekly meetings held prior to data collection, and the difficulty ensuring the participation of all the patients that took part in the focus group.

In view of the above, it is recommended that other health services, such as Primary Health Care Units, routinely promote the dissemination of guidelines on self-care in diabetes, as this facilitates the continuity of treatment at home, favoring care comprehensiveness.

## FINAL CONSIDERATIONS

The study found that the Social Responsibility Program gave rise to changes in life habits, considering the practice of health education fundamental to the diabetic patients’ perception.

The meetings made possible changes in habits concerning the adherence to a balanced diet with fruits and vegetables, regular practice of physical exercise, continuous medication intake and maintenance of foot care, seeking to prevent ulcer formation.

Thus, the study participants were aware of the importance of practicing physical activity, adequate diet, continuous use of medications, and the recommended care procedures to avoid foot amputations.

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## CONTRIBUTIONS

**Soraya da Silva Trajano, Cristina de Santiago Viana Falcão, Leila Maria Machado Bezerra, Ana Maria Fontenelle Catrib:** Conception and design of the study; acquisition, analysis and interpretation of data; writing and final approval of the version to be published. **Luiza Valeska de Mesquita Martins, Tallys Newton Fernandes de Matos:** data analysis and interpretation; writing of the manuscript and final approval of the version to be published. **Ana Paula Vasconcellos Abdon,** writing of the manuscript and final approval of the version to be published.

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