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Perception of people with diabetes on health education and adoption of healthy habits

Percepção de portadores de diabetes sobre educação em saúde e adoção de hábitos saudáveis

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ABSTRACT
This study aimed to know the perception of Type 2 Diabetes Mellitus patients on the influence of health education for the adoption of healthy habits and disease control. The method used was a qualitative study based on Theory of Social Representation. The testimonies of 23 interviewees were analyzed using the Collective Subject Discourse technique. Four Central Ideas emerged from the testimonies on the guidelines of professionals regarding healthy habits that can contribute to disease control, and six that dealt with how educational actions can be more effective in stimulating the adoption of a healthier lifestyle. Based on the representations of the participants, this study brought the reflection that health education, as a resource to encourage the change of habits, only becomes effective when based on the reality of each individual, involving dialogue, qualified listening and training for the self-care.

Keywords: Health education. Healthy lifestyle. Type 2 Diabetes Mellitus.

RESUMO
Este estudo teve como objetivo conhecer a percepção de portadores de Diabetes Mellitus Tipo 2 sobre a influência da educação em saúde para a adoção de hábitos saudáveis e o controle da doença. Trata-se de um estudo qualitativo fundamentado na Teoria da Representação Social. Os depoimentos de 23 entrevistados foram analisados por meio da técnica do Discurso do Sujeito Coletivo. Emergiram das respostas quatro Ideias Centrais a respeito das orientações de profissionais quanto aos hábitos saudáveis que podem contribuir para controle da doença, e seis que versaram acerca do modo como as ações educativas podem ser mais efetivas com vistas a estimular a adoção de um estilo de vida mais saudável. Com base nas representações dos participantes, este estudo trouxe a reflexão de que a educação em saúde, como recurso para incentivar a mudança de hábitos, só se torna efetiva quando fundamentada na realidade de cada indivíduo, envolvendo diálogo, escuta qualificada e capacitação para o autocuidado.

Palavras-chave: Diabetes Mellitus Tipo 2. Educação em saúde. Estilo de vida saudável.

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INTRODUCTION

Diabetes caused 1.5 million deaths worldwide in 2012, in addition to 2.2 million deaths related to increased blood glucose and possible complications from diseases that include heart attack, stroke, kidney failure and amputations, among others.[1] According to the International Diabetes Federation, in 2019 there were 463 million people with diabetes in the world, with an estimated prevalence of 8.3%, and 4.2 million deaths related to the disease. The global statistical projections for 2045 estimate 700 million carriers, with a prevalence of 9.6%. In Brazil, this number reached, in 2019, 16.8 million in the age group of 20 to 79 years, placing the country in the fifth position in the world ranking - behind only China, India, United States and Pakistan -, and can reach 26 million in 2045.[2] The prevalence of diabetes recorded in the last survey carried out by Vigitel in 2019 was 7.4%, and was higher among women (7.8%), compared to men (7.1%). The incidence increases progressively with increasing age, decreasing significantly according to higher levels of education.[3]

According to the World Health Organization (WHO), diabetes is among the four main Chronic Noncommunicable Diseases (NCDs), responsible for 71% of all deaths in the world.[4] Type 2 Diabetes Mellitus (DM2) represents about 90- 95% of the cases of the disease, and the majority of people affected are obese or have a high percentage of abdominal fat. The risk of developing DM2 increases with age, obesity and lack of physical activity. It occurs more frequently in women with a history of gestational diabetes and in individuals with hypertension or dyslipidemia, whose prevalence varies in different ethnic races/subgroups; it is often associated with genetic predisposition, but mainly with social and behavioral aspects that define the adopted lifestyle.[5] In 2017, the average global burden of the disease was 6,059 per 100 thousand individuals - in Brazil, this number was 4,240 patients. There is a projection that in 2030 there will be 7,079 people with DM2 for 100,000 people in all regions of the world and a trend of increasing prevalence in low-income countries and among the younger population.[6]

Based on the data presented, it is possible to see how much diabetes takes on worrying proportions in the global and national scenario. This implies more effective prevention and control measures so that the disease does not reach even more alarming levels in the near future. In this context, the economic impact on society, health systems, individuals and their families is also highlighted, resulting from the loss of quality of life and the high degree of limitations associated with DM2.[7] In view of the difficulties in adhering to drug and non-drug treatment, this scenario becomes even more complex, and health education is an indispensable proposal for comprehensive treatment that aims to promote the understanding of participants to favor autonomy and overcome social conditions.

Effective and promising prevention implies planning health education actions, identifying patients with DM2 since the onset of the disease and adopting measures to avoid acute or chronic complications. When well conducted, such actions, aimed at behavioral changes, may represent the possibility of changing the critical panorama that unfolds.[8] It is assumed that strategies that encourage self-care, well-oriented and specific, favor the adoption of healthy habits to be incorporated into people's daily behavior, including the correct use of medications, prescribed diets and moderate physical activity.[9]

To deal with challenges of implementing actions focused on prevention, early diagnosis, control and access to correct treatment, the "Berlin Declaration" proposes contextualized policies and measures, including the adoption of a healthy lifestyle, in addition to guarantees of adequate medication therapy. In this context, health education needs to break with traditional conceptions and approaches, and encourage interventions that encompass the understanding of the context of life of individuals, as well as the learning capacity of each person to overcome his/her own limits.[10]

Planning effective educational actions should encompass innovative strategies focused on dialogue between users and health professionals. In this sense, the performance of interventions in line with the expanded concept of health, the subject of rich discussions in the field of health promotion, needs to take into account the problems and needs of the subjects, which, in most cases, are determinant and conditioning factors of the health/illness process. To this end, institutions in the health care network should promote intersectoral initiatives that bring positive results in relation to living conditions, enabling healthier choices, without running the risk of blaming individuals already exposed to social vulnerability.[11]

Thus, the goal of this study was to understand the perception of Type 2 Diabetes Mellitus patients on the influence of health education with a view to adopting healthy habits and controlling the disease.

METHODOLOGY

This is an exploratory, descriptive, qualitative study based on the Theory of Social Representation (TSR)[12] through the technique of the Collective Subject Discourse (CSD)[13]. The TRS applied in this technique advocates abstracting knowledge from the common sense that permeates the speeches of people who share the same reality and who, in their daily lives, are affected by the interpretations of their crystallized beliefs and values, over time, in that social group. This characteristic allows the researcher to build a collective discourse, grouping aspects common to the various social actors that are recognized in the CSD as transmitting their own opinion.[12,13]

Participants were recruited in August 2016 through a written invitation addressed to DM2 patients (n = 37) registered and followed up at a Family Health Unit (FHU) in the municipality of Cachoeira, in the Recôncavo Baiano, Brazil, and delivered by Community Health Agents (CHA). A meeting was held on the premises of a university polyclinic, attended by 32 patients. The researchers introduced themselves and detailed the research objectives at all stages of a master's thesis project that provided, in its development, an educational intervention for a healthy lifestyle.

The sample was of convenience with spontaneous adherence and had the adherence of 23 DM2 patients, over 18 years old, who accepted the invitation because they were available to be part of all stages of the research. All signed the Informed Consent Form (ICF) and participated in the stage described in the present study. For data collection, a form with sociodemographic information and an audio-recorded interview was used, with a semi-structured script, conducted by four researchers, students of the Master's Program in Health Promotion.

The research team was previously trained in how to apply the interview and perform the pre-test to adapt the guiding questions: 1) Has any health professional already advised you on the influence of healthy habits to control diabetes? and 2) How do you think health professionals could help people better understand the benefits of a healthier lifestyle?

For data processing, the CSD analysis technique was used, which allows, after transcribing the discursive content and careful reading, the search for meaningful speeches on a certain subject and the grouping of several statements that express the collective representations of beliefs, values and individual opinions of the researched universe. This was done with the support of the Qualiquantisoft software to facilitate the extraction and grouping of the Key Expressions (KEX) present in the speeches in order to enable the construction of the CSDs, with the representation of the group, around Central Ideas (CI) about the questions proposed in the research.

CSDs are written in the first person singular, but it is worth mentioning that this discourse is the result of the reconstitution of fragments of individual speeches present in the community.[13] Analysis of speeches was performed based on the Theory of Social Representation,[12] which is aligned with the

technique of CSD when starting from the common sense present in the empirical substrate coming from the context experienced by the groups that share the same reality.[13]

This study is part of a larger study, approved by the Research Ethics Committee under opinion 1542117 and CAEE 51672215200005377, issued on 11/01/2016. The confidentiality of the participants' identity was preserved in all stages of the work, since the analysis technique provides for the presentation of a single discourse, in which the different opinions are grouped in a CSD representing the constituted ideas.

RESULTS

Participants in this research were 23 DM2 patients registered and followed up at a FHU in the municipality of Cachoeira, in the Recôncavo Baiano, Brazil. Their socio-demographic distribution showed that 74% were female and 26% male. Most were between 41 and 59 years old (39%) and 60 and 79 years old (39%), while the rest were over 80 years old (13%). There was a predominance of brown (56%) and black (35%) skin color, with elementary school education (39%) and high school education (39%).

SOCIAL REPRESENTATIONS ON HEALTHY LIFESTYLE GUIDELINES

The speeches were constructed and categorized according to the CI based on the KEX identified in the respondents' responses. The analysis of the discursive content sought to highlight the social representations, present in the speeches, about how professional guidance has been given and how educational actions could be more effective for adopting a healthier lifestyle. Next, the two questions are presented, applied in the interview with the corresponding CIs and respective CSDs.

Question 1: Has any health professional already advised you on the influence of healthy habits to control diabetes? How was that guidance for you?

CSD built from CI A "Never talk about the influence of lifestyle on health", representing 48% participants, denies the role of health professionals in advising on the influence of healthy lifestyle for DM2 control.

> No, not from the health unit, they haven't explained anything yet. No physician ever told me about these things. What I know is because I have read, studied a little or heard only in the lectures, but they never talked about that at the health unit.

CI B, "Several professionals have already talked about some habits", which comprised the CSD, represented by 40% individuals, identifies the action of health professionals, guiding them about the appropriate lifestyle to avoid complications resulting from the disease.

> Yes, they already did! The physicians, the nurses have already informed me, they have already told me exactly what I can do. The physician at the health unit where I do the exams and the community agent always explain to me how it is. The physician who was there, who left, he talked to me a lot about healthy lifestyle. Now, whenever I go to the consultation with the endocrinologist, she speaks. My cardiologist has already told me that. When I acquired the disease, the nutritionist told me about habits, what I should stop doing, eating, so she guided me well.

CI C, "No importance is given to guidance", represented in the CSD by only one individual from the researched group, it brings with it the anchoring of a reality, generally perceived, that people, even hearing about the influence of adopting a healthy lifestyle, they may not incorporate these changes into their daily lives, perhaps because they do not understand their importance.

> People, in general, do not give importance to guidance. I went to a doctor once and then he gave me a paper with everything I could eat and what I couldn't eat, but I don't even know where I put this thing.

In CI D, "Physician only prescribes pills", represented in the CSD also by only one individual, identifies a routine conduct of prescribing drugs, without, however, including guidelines on the influence of healthy lifestyle as a component of treatment.

> No, the doctors only give me the pills, they never said anything like that. It's just pill, pill, and look, I'll tell you something, I believe in natural remedy.

Question 2: In your opinion, how could healthcare professionals help people understand the benefits of a healthier lifestyle?

CI A, "Difficulty in understanding the medical language", presented in the CSD below, represents the representation of 26% participants that clearer and more effective communication would be the best way to assist in the guidance regarding a healthy lifestyle and thus stimulate individual's adherence.

> Ah, it's the way they talk, we have ... A difficulty to understand what doctors say, and it gets in the way. They speak very fast and, sometimes, that very light explanation, we can't get all their explanations. The physician only writes there quickly, and explains quickly, and there is no way for us to get what they are saying. If we take it, it will. If you didn't, then you will ask the nurse for information, right? I don't remember all the things they say.
> I think that the health professionals could try to talk to people like that, in their language, to explain better what the life of the diabetic should be like, what food should be like and also the question of sleep, because people think it is necessary to spend more to be able to have better health, and that's not it.

CI B, "There is nothing to improve", was also represented by 26% of the individuals, who did not think necessary to change the way in which health professionals advise. They understand that the conduct should be like that and that it is up to the patient to try to understand, as presented in the next CSD.

> I don't think so, I think they speak well, because they explain everything to me correctly. For me there is no need to change anything or improve. They guide as far as possible, right? They use their professionalism, so it depends on us listening, right? We have to try to understand and try to follow the guidelines they give. "Following the rules the doctor says will help a lot!".

CI C, "Yes, making visits to teach things", allowed the construction of a CSD and showed the opinion of 22% individuals on the importance of home visits, a closer contact with the health professional, within the reality and of the context experienced by them.

> Yes. Visiting more often, going over to the house, sitting with us, giving instructions and teaching how to take the medicine, how to do the food, so as not to eat anything wrong, see if everything is right. They have to inform what we have to follow and why we have to do it, right? Because sometimes we take all the papers and don't understand everything.

DI D, "Each person has to do their part", allowed the construction of the DSC represented by 13% of the participants.

> I need to help myself, because I have no difficulty understanding! My difficulty

> is to execute, so I need to love myself more and fulfill all the right requirements. Because I'm going to have a good life and I'm going to live longer.

This discourse indicates that, in the perception of patients with DM2, to resolve the issue of adherence to a healthy lifestyle, it is necessary to raise people's awareness and motivation.

CI E, "Explain the therapeutic scheme better", represented in the CSD by only 4% individuals, indicates the difficulties that patients face in administering various drugs necessary to control the disease, as is normally prescribed by doctors.

> There are so many pills that the person takes that sometimes it is even bad for the person! It could be a remedy only! The person takes insulin, takes pills and sometimes doesn't even know what he's taking ... He doesn't even know why, sometimes, the glucose increases or decreases.

Finally, CI F, "Guidance does not solve anything", although presented by only one participant as well, it represents those who think of the inefficiency of generic recommendations to encourage the adoption of healthy habits.

> It is always good to listen for us to learn more, but I think there is no guidance that improves. I take medicine and it's always the same.

It is noticed that there is great expectation regarding the effect of the medication, which should solve the problems related to DM2, as well as a certain passivity and resignation in living with the lack of resources to control the disease.

DISCUSSION

In the present study, there was a predominance of participants over the age of 60 (52%) and female (74%). These data corroborate the tendency of increasing the prevalence of global diabetes in people over 65 years of age (19.9%). There is also a significant increase in prevalence in countries with high (10.4%), medium (9.5%) and low income (4.0%). It should also be noted that 67% people with diabetes live in urban areas, and 50% do not even know they have the disease.[14] It is recommended that the increase in life expectancy of the global population, the early diagnosis of DM2 and the more assertive management of the pathology have contributed to the increase in prevalence. On the other hand, it should be considered that it ranks seventh among the main causes of disability and years of life lost.[6]

CI A of the first question presents the opinion of 48% interviewees, for whom health professionals do not advise on the influence of lifestyle on diabetes control. However, it is recommended that the multidisciplinary team can help to improve the quality of life of diabetic patients. Therefore, the work with DM2 patients should seek collective solutions and pave the way for a democratic exercise in decision making, both in prevention and treatment. Health promotion actions involving early interventions can influence disease control and improve patients' quality of life.[15] Self-care, when supported by the health team, can be configured as an effective strategy, as long as it respects time, living conditions and limitations of each individual, that is, that considers the social determinants and their influence on the result of people's illness.[16]

For 40% participants, health professionals advise on the importance of changing their lifestyle to achieve positive results. It is necessary, however, that they establish an interdisciplinary work plan focused on health education, with the sharing of updated knowledge about the disease among their peers. In this sense, professionals are required to develop pedagogical skills for effective communication, which values listening and understanding, as well as negotiation with patients and the use of dynamic strategies.[10]

CI C reveals that, many times, the patient does not give importance to guidance. Often, individuals

with DM2 recognize the relevance of the self-care actions necessary to control the disease, but do not adhere to them consistently and regularly. They are influenced by internal and external conditions, such as personal decision, organization of health services and family issues. Thus, due to difficulties in the management of chronic conditions, it is essential to plan assistance in order to respect and consider the individual's perspectives.[15]

In an "integrative review" study, which sought to identify educational interventions that support the self-management of DM2, one of the highlights focuses on the question of motivational interview with a view to adopting a healthy lifestyle, taking into account psychosocial, behavioral and clinical aspects of individuals. In most of the studies involved, it is clear that the patient does not achieve full self-management, hence the need for a process of co-responsibility between him and the multidisciplinary team that guide the treatment.[17] It is important to highlight that health professionals need to consider the influence of determinants in the construction and organization of strategies for the care, coping and control of DM2.[11]

The representation of participants about the prescription of medications being the only intervention by health professionals is outstanding. This is because, even though the benefits of adopting a healthy lifestyle are widespread in the scientific community, many physicians prescribe only medications and dietary restrictions, failing to properly guide or encourage healthier behaviors. At the same time, it is easier for diabetics to take medication than to exercise or follow a healthy diet.[18] Although pharmacological options are increasingly extensive and offer more therapeutic possibilities, lifestyle-related interventions have become increasingly common and more essential and necessary to achieve therapeutic goals, especially in the case of DM2.[10,19]

Regarding the way in which health professionals could help people understand the benefits of a healthier lifestyle, 26% respondents mentioned communication, emphasizing the difficulty in "understanding what the physician says". As a result of a fragmented approach, in most cases, it does not meet the demands of the diabetic and the comprehensive care necessary for patients affected by this chronic condition, representing a great challenge. The material, physical and human resources available are limiting factors that can interfere with the adequate supply of health education actions offered to this group.[20]

In this sense, it is necessary that the way of doing and acting of Primary Health Care professionals is optimized through a permanent education program focused on the reality of daily work and on resolutive and dynamic strategies that consider the needs of patients in their life context. This is a fundamental condition for effectiveness in actions, for the success of therapeutic communication and for an interaction that results in satisfaction between health professionals and the user.[21]

For another 26% respondents, there is no need to change the practice of health professionals, as they were satisfied with their experiences. Obtaining adequate information about diabetes should be associated with a more positive attitude towards treatment. Inadequate knowledge, as well as precarious practices, can negatively influence the adoption of a healthy lifestyle and successful self-management activities of the disease.[22] In this perspective, for better adherence to self-care in DM2, it is necessary to guide the individual, promoting knowledge and the development of skills, attitudes and motivation. Thus, health education should involve the support of family members and health professionals as fundamental practices in this process.[9]

Health professionals are considered partners in the educational process, helping to cope with the disease when carrying out their daily practices. In this sense, the bond of friendship and empathy with them results in incentives for changing the lifestyle and promoting self-care.[23] It is reiterated that health

counseling can only be considered effective to control diabetes when based on the reality of each individual and unfold into awareness and transformation of favorable behaviors, otherwise there will only be transmission of information.[9]

Corroborating the idea of a bond of friendship and empathy, 22% interviewees mentioned home visits as a way to help them adhere to healthy habits. Such initiative gains space as an educational strategy, as it involves dialogue and qualified listening, besides being configured as a modality to enable the user to self-care, since it allows being close to the reality of each person's life, besides helping him/her to make decisions more correct. In a clinical study with the objective of evaluating the effect of home visits on adherence and empowerment of users with DM2 for self-care practices, the authors observed positive changes in the behavior of patients related to dietary re-education and physical activity.[24]

CI D brings a representation that each person needs to do their part. Nevertheless, for effective adherence to treatment, it is necessary to awaken personal motivation in the individual, promoting knowledge and acceptance of the disease, which involves time, training for self-care, social support and the development of comprehensive policies aimed at managing access to more effective and less costly medicines. Psychological stress caused by the limitations imposed by the disease and the high cost of medicines, as well as the concern with side effects and forgetting to take them, are pointed out as factors for non-adherence to medication.[25] In this sense, the active presence of health professionals, continuously providing individualized information and support, it becomes essential to the success of the therapeutic plan. The involvement of partners, family and close friends also has a positive impact on treatment.[22]

In a research that aimed to investigate what it means to have quality of life for a person with diabetes in the perception of health professionals, the authors concluded that, for DM2 patients to ensure this condition, it is important that they feel good in their way of living, including family environment, neighbors, people in their relationships, health services and community. In this context, family members play a key role in encouraging to understand their own health status. When this support takes place, the patient more consistently assimilates the self-care required to control the disease.[26]

CI E exposes the difficulty with the therapeutic regimen. In addition to the interaction between professionals and patients and economic factors, the complexity of the therapeutic regime has a significant influence on adherence to drug treatment. This aspect can still be aggravated by the advance of the pathology, further discouraging the use of drugs and, consequently, negatively impacting glycemic control.[27] Considering the multiple factors involved, when evaluating the patient's therapeutic proposal, it is necessary to take into account the context and sociodemographic and individual characteristics of each one. Knowledge of these aspects may contribute to the development of strategies aimed at increasing treatment adherence.[28]

Unhealthy diet and physical inactivity have been factors of difficult adherence and strongly associated with overweight and obesity, aspects widely studied and pointed out regarding their influence on the development of diabetes. However, they are not the only triggers and influencers of the disease.[6] Furthermore, it is important to understand that simplifying a therapeutic regimen is not only about reducing the number of drugs and their daily doses or indicating more appropriate presentations. It also involves a joint effort by users and professionals who assist them in order to promote the empowerment of people with DM2, through the involvement of participants in the management of their health care, encouraging their ability to make decisions and resolve problems with the implementation of adaptive strategies. These measures are important to ensure the therapeutic instrument with the best effectiveness, efficiency and safety for each individual.[29]

CI F indicates that there is no guidance to solve it, and the statement "I take the medicine and everything is always the same" reflects the need to encourage the overcoming of barriers and the implementation of educational interventions that seek to build strategies aimed at promoting possible behavioral change in each individual, contributing to the achievement of more favorable results[16]. For that, it is important that the management of self-care by the health professional is based on the joint elaboration of feasible plans and goals, combined with public health policies.[10]

Health professionals, when acting as partners, start to stimulate the search for knowledge and propose practical solutions to overcome the barriers found, encouraging and promoting the co-responsibility of the user regarding the practice of self-care, without, however, attributing guilt for conditions that are often beyond their control. Adherence to treatment does not depend only on following a professional prescription, but on the user's awareness of their health condition and the relationship with their beliefs and daily practices.[30]

The number of participants is pointed out as a limitation of this study, although it has achieved good representation in the chosen health unit, it did not include other regional scenarios for greater coverage. It is emphasized that it is important to develop more research on the adoption of healthy habits and control of DM2, with the purpose of expanding the dialogue and motivating Primary Health Care professionals regarding the implementation of collective, inter and multidisciplinary actions, which address this serious public health problem with higher resolution.

FINAL CONSIDERATIONS

There was a preponderant representation of the participants who denied having received guidance from health professionals on the importance of adopting a healthier lifestyle for an effective control of DM2. However, a portion of the group mentioned having heard about the importance of these aspects. Such divergence in the CSDs suggests that not all professionals provide guidance on the topic as part of the therapeutic approach or do it in a way that is not adequate for patient understanding, often disregarding factors and conditions of vulnerability.

CSDs conferred a predominant representation as to the need for critical reflection with regard to the performance of health professionals and the methods commonly used to obtain better results. Participants indicated the need for more effective communication by professionals to achieve patients' understanding of the benefits of a healthy lifestyle. Some representations pointed out that it is necessary to consider the reality of life of DM2 patients, reinforcing the importance of the role of social determinants. They also mentioned the difficulty and insecurity in taking several medications a day and stressed that there should be a less complex therapeutic regimen. This suggests that health education should be individualized and include the patient's socio-cultural conditions.

It is worth highlighting the relationship between social determinants and the lifestyle of people with diabetes. Based on the speeches of participants in this research, it is clear that the influence that living conditions have on health conditions is undeniable. In this context, it is up to the health professional not to blame the individual, but to identify such determinants and conditions, as well as the vulnerabilities imposed by different realities. Thus, it will be possible to adapt strategies and forms of individualized approaches in order to promote self-management of care, favoring healthier behavior choices.

In summary, this research made it possible to identify aspects that may influence the understanding of professionals and participants about the importance of adopting healthy habits in the control of DM2, such as effective communication, type of approach and, mainly, perception of the need for health professionals consider the limitations of each individual and their

life context. In this sense, it is essential to carry out more research to investigate better health education strategies, aiming to expand the involvement of these professionals in more effective actions to stimulate the adoption of a healthy lifestyle by DM2 patients.

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