v. 5, n. 22, 2025

International Journal of Health Science

INFORMATION AND CARE FOR PEOPLE WITH TYPE 2 DIABETES MELLITUS IN PRIMARY HEALTH CARE

Acceptance date: 28/05/2025

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Abstract: Introduction: Diabetes *mellitus* (DM) is a group of different chronic diseases characterized by hyperglycemia and consequent vascular complications. It is one of the most important causes of mortality worldwide and has considerable morbidity. Objectives: To identify the knowledge of people with type 2 diabetes about their disease and the care they receive in primary care at a basic health unit. Method: A cross-sectional, descriptive study carried out in a basic health unit in Brazil using a semi-structured interview script. The study followed the ethical precepts of the Declaration of Helsinki. Results: 58 people were interviewed, aged between 36 and 86, 67% of whom were female. 84.4% believe that it is possible to have diabetes and not feel anything. 94.8% answered that diabetes is not contagious and 10% believe that DM2 can be cured. Most users reported dissatisfaction with the care and services provided. Conclusion: It is clear that people with diabetes need a well-structured support network, with health professionals who are active and engaged in planned and ongoing actions to provide guidance and health care to the community.
Keywords: Primary Health Care; Knowledge; Care; Diabetes Mellitus; Health promotion.

INTRODUCTION

Diabetes *mellitus* (DM) is a group of different chronic diseases characterized by hyperglycemia and consequent vascular complications. It is one of the most important causes of mortality worldwide and has considerable morbidity [1].

According to data released by the *International Diabetes Federation* (IDF), 382 million people in the world aged between 20 and 79 are affected by diabetes, with the majority aged between 40 and 59. In Brazil, there are 11.9 million people in this age group. All types of DM are on the rise, particularly type 2, which will increase by 55% by 2035 [2].

In Brazil, among the types of DM, type 2 diabetes mellitus (DM2) accounts for 90% to 95% of diagnosed cases, affecting individuals of any age, but more frequently found in patients over 40 [3].

Due to the growth of DM in recent decades, the disease has become a public health problem, causing social and economic impact, both in terms of productivity (related to absence from work) and high costs (related to the main causes of hospitalization), and which, if not treated properly, leads the individual to present chronic and irreversible complications in the long term [4].

In order to improve care for diabetic patients, there is a need to look for effective strategies through a comprehensive approach, involving pathophysiological, psychosocial, educational and health care reorganization elements. Considering diabetes mellitus a chronic health condition, patient adherence to treatment will only be possible with their effective participation, by obtaining information and appropriate educational activities from health professionals [4].

In this way, the knowledge that DM2 sufferers have about their disease is a very significant parameter in their lives, as it is essential for adherence and the continuity of effective treatment. Another very important issue is the degree of adaptation to the disease, caused by a lack of motivation and a reduction in quality of life [5].

The increase in the prevalence of chronic diseases means that new forms of relationships and care must be centered on the individual [6]. In this sense, empowerment allows for dialogic learning and the development of critical awareness in which people with diabetes find meaning in their own healthy, autonomous and personalized way of living [7].

Knowing the health situation of a given population allows the nursing professional to draw up an overview of the health of the dia-

betic population as well as to get to know and interact with the patients in the basic health unit (UBS), directing care to their needs, including the organization of health education activities.

In view of the above, this study set out to identify the knowledge of DM2 sufferers about their disease and the health promotion actions developed in the context of the family health strategy.

METHOD

This was a cross-sectional, descriptive study carried out in a Basic Health Unit (BHU) in the Health District IV (DS IV) of the Recife Health Department, Pernambuco, between September and November 2012.

The population consisted of 274 diabetics. Inclusion criteria were diabetic patients registered and monitored at the study's reference UBS. Those who were not present at the time of the home visit were excluded from the study. The sample was random and consisted of 60 individuals, chosen for convenience, according to the visits scheduled during the period. Sixty diabetics were interviewed; two clients refused to take part in the study, giving a final sample of 58 participants.

A semi-structured interview script was used, consisting of 14 objective questions relating to the characterization of the subject, age group, Body Mass Index (BMI), care for DM2, knowledge about the disease and health care provided by the UBS and family. The data was tabulated in an Excel spreadsheet and for the analysis, frequencies of the variables studied were obtained and organized into tables and graphs using the *Prisma 5.0* program. This study complied with the ethical precepts of the Declaration of Helsinki and was approved by the research ethics committee of the Federal University of Pernambuco, under CEP/CCS/UFPE process no. 300/10.

RESULTS

CHARACTERIZATION OF DM2 PATIENTS SEEN AT THE UBS

The basic health unit studied has 1148 individuals registered in the hypertension and diabetes care program (Hiperdia), of whom 274 have DM2. The sample consisted of 58 people, 67% (n=39) female and 32% (n=19) male.

The age of the clients ranged from 36 to 86 years, with an average of 63±12 years. The most significant age group was between 58 and 68 years old, with 38% (n=22). The predominant level of education was elementary school, with 62% (n=36). With regard to family income, the predominant group was made up of those earning between 1 and 5 minimum wages, 74% (n=36).

The health situation of the clients monitored at the basic unit was characterized in terms of the time elapsed since diagnosis of the disease, body mass index and complications resulting from diabetes. The predominant ranges of time since diagnosis were 1 to 5 years and over 11 years since diagnosis, with 36% (n=21) and 33% (n=19), respectively.

The body mass index of both those under and over 60 was marked by overweight, accounting for 41% (n=14) and 65% (n=15) of cases, respectively. The most prevalent health complications resulting from DM2 were reduced visual acuity and nephropathy, with 22% (n=13) and 14% (n=8) occurring. 50% of the individuals studied did not report being affected by other diseases resulting from DM2.

The data presented above can be seen in detail in Table 1.

KNOWLEDGE ABOUT DIABETES

Most of the clients interviewed, 84.4% (n=49) believe that it is possible to have DM2 and not feel anything, at least during the initial phase of the disease; while only 15.5% of them (n=9) think that it is only possible to

Sociodemographic variables	N	Percentage (%)
Sex		
Female	39	67%
Male	19	32%
Age (in years)		
36 a 46	4	7%
47 a 57	15	26%
58 a 68	22	38%
69 a 79	11	19%
80 a 90	6	10%
Education		
Elementary school	36	62%
High school	12	21%
Higher Education	3	5%
Didn't know	7	12%
Income* (minimum wage)		
No income	3	5%
Not defined	6	10%
< 1 salary	5	9%
1 to 5 salaries	43	74%
> 5 salaries	1	2%
Time since diagnosis of DM2 (years)		
< of 1		
1 a 5	1	2%
6 a 10	21	36%
> of 11	13	22%
Didn't know	19	33%
	4	7%
Body mass index (BMI) of people under 60 years of age**		
Overweight	14	41%
Obesity	12	35%
Eutrophic	8	23%
Body mass index (BMI) of people over 60 years of age*#		
Overweight	15	65%
Eutrophic	6	21%
Low weight	1	4%
Complications arising from diabetes		
Decreased visual acuity	13	22%
Nephropathy	8	14%
Cerebral Vascular Accident	5	9%
Amputation	2	3%
Diabetic foot	1	2%
No complications reported	29	50%

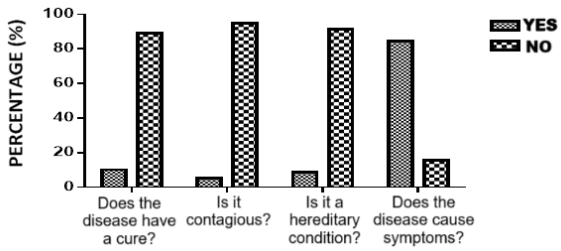
Table 1 - Sociodemographic and health profile of DM2 patients seen at the UBS. Recife, PE, Brazil, 2012 (N = 58)

*Minimum wage in 2012: R$ 622.00; **The diabetic population studied was divided into diabetic patients aged under 60 and over 60. This division was made in order to establish the Body Mass Index (BMI) by age group, since there are different BMI classifications according to the age group studied[8]; *#For the age group over 60, diabetic individuals were classified as underweight, eutrophic and overweight[9]; Source: Own elaboration.

have diabetes if symptoms are present. When asked about the transmissibility of the disease, almost all of them, 94.8% (n=55), replied that DM2 is not contagious; however, around 5% (n=3) still believe the opposite.

91.3% (n=53) said that the disease can appear even if no one in their family has it, and that this disassociates it from heredity. There was also a belief that DM2 could be cured, 10% (n=6), despite the majority, 89% (n=52), admitting that DM2 is incurable.

The following graph details the data on the possibility of cure, transmissibility and heredity (Graph 1).



Graph 1 - DM2 patients' knowledge of symptoms, ways of developing the disease and the possibility of a cure.

Source: Own elaboration

When asked about the importance of preventing accidents, such as bumps, cuts, punctures with nails or glass, 100% responded positively to the importance of preventing injuries, especially to the skin.

With regard to the most common symptoms, 98% (n=57) reported that a patient with DM2 can present polyuria as well as being overweight. Another very significant result is the number of people who believe that a diabetic can lose weight quickly, 96% (n=56).

In addition, 94% (n=55) of respondents reported other symptoms, such as adequate weight, polydipsia and low visual acuity. Around 91% (n=53) reported significant numbness in the legs and cold sweats. Finally, 84% (n=49) mentioned dizziness as a symptom present in DM2 sufferers. It's worth noting that no interviewee failed to mention at least one symptom that can affect people with DM2.

With regard to guidance from a health professional on the right diet for diabetics, 90% (n=52) replied that they had been taught this and only 10% (n=6) had not received any type of guidance on diet. As for those who had received some information, they were asked which health professional was responsible for advising them and 62% (n=36) said doctors (any specialty); 32% (n=19) nutritionists; 1% (n=1) nursing professionals and 1% (n=1) Community Health Agents (ACS).

PERCEPTION OF HEALTH PROMOTION ACTIONS DEVELOPED IN THE FAMILY HEALTH STRATEGY

According to the users' reports, dissatisfaction with care refers to the disorganization of the health unit, shortage of professionals, unmotivated professionals and poor physical structure. As for satisfaction with the professional care provided by the UBS, 44% (n=26) of the diabetic population attended by the health service approved.

Another relevant question is the participation of the family as support in coping with the disease, in which 70% (n=41) of the patients reported having family support, who are concerned and help with care, the others claimed not to have any kind of support, as most live alone or with family members who don't give them the proper attention.

DISCUSSION

People with type 2 diabetes *mellitus* were characterized in terms of their clinical and sociodemographic profile, as well as their perception of the disease and the health promotion actions developed in the family health strategy.

Several studies have shown similar results for the type 2 diabetic population in terms of the prevalence of females in the population with this condition [10-12]. Fortunately, women tend to be more vigilant with their health than men, and start seeking health services more frequently, thus increasing their accessibility, as well as obtaining a diagnosis of DM2 earlier [12]. This fact deserves attention, since men tend to take poorer care of their health, which could explain the lower number of diagnoses.

DM2 affects individuals of any age, especially those over the age of 40, comprising around 7.6% of the total Brazilian population [13]. In addition, results similar to those of the present study were found, in which DM2 sufferers had an average age of 64 years, 46±11.15 years [14].

It is known that there is a significant association between the risk of developing DM2 and the clinical variable BMI. In a recent study, the majority of diabetics had a high BMI, with 40.8% being overweight and 18.9% being obese [15], corroborating the findings of this study in individuals under 60 years of age.

With regard to schooling, income and time since diagnosis, the data found confirms the findings in the literature [16-18], which reinforces the understanding that this population needs public policies and attention directed at their needs, given that they have low levels of schooling and income.

Decreased visual acuity and nephropathy are among the microvascular alterations resulting from DM2. A study reported that these complications affected around 4.4% of the population, a figure lower than that found in this study [19]. Despite this, the same study states that there is a positive correlation between females and a higher incidence of microvascular complications, characteristics that were in fact observed in this study.

Knowledge about DM2 was marked by an understanding of what the disease is and how to take care of it to avoid further complications. Unfortunately, understanding is not always accompanied by self-care actions and changes in habits [20]. In addition, raising awareness about the disease should remain a focus for this population, given reports of confusion about the possibility of curing the disease and the need for further clarification about symptoms. It has been observed that patients' knowledge of diabetes is based on what they have heard during their years of treatment, from other people who also suffer from the condition or even from the signs and symptoms they experience on a daily basis [21].

A study carried out with DM2 individuals attending a USF in the municipality of Votuporanga, in São Paulo [22], found that their perception of the symptoms and physical characteristics that are most present in DM2 was very similar to the results identified in our study. The most common responses were: low vision (77%); polyuria (73.6%); numbness in the legs (57.5%); rapid weight loss (48.3%) and polydipsia (48.3%).

However, in another study [23], the authors observed that diabetes was a stimulus for changes in self-care and adherence to treatment among the women interviewed, who only began to rethink these issues when the serious complications of DM2 began to develop, such as polyuria, impaired vision and circulatory problems.

Regarding satisfaction with the care provided by the unit, a study carried out in the interior of São Paulo showed that health professionals still provide care to patients with DM2 according to the vertical care model, when they should prioritize care that goes beyond aspects related to the prescribed therapy, such as cultural aspects and understanding beliefs [24]. These findings reaffirm the need for changes in the care model and the attitude of some professionals towards the patient's needs.

The family and the community are important components in controlling diabetes. Si-

milar data to this research was found in a study carried out in Teixeira (MG) with diabetic individuals, in which the family cooperated with the care of the disease in 73.4% of those interviewed [12]. Sharing experiences in groups and engaging the family in the patient's care are decisive factors in managing the disease and maintaining quality of life.

CONCLUSION

The DM2 population in this study has an epidemiological profile represented by a female majority. The disease affects individuals of more advanced age , with low income and schooling. Overweight is a clear problem in this population. These patients have a considerable number of complications related to the underlying disease, which requires greater attention from the BHU that treats them in terms of treatment, follow-up and ways of preventing problems.

With regard to the knowledge of DM2 patients at the UBS about the disease, it was found that they have a good understanding of most aspects relating to the disease, such as factors involved in triggering the disease, treatment, cure, among others.

In general, most of those interviewed expressed a good perception of the specific symptoms of the disease and the physical conditions caused by its progression. However, it is worth pointing out that there is still a part of this population that lacks important information about the disease and it is up to the health team to guide them and help them manage the disease.

One relevant fact was that the majority of users disapproved of the care they received at the UBS. This reflects on the need to bring this population closer to the work of UBS professionals, including the family in this process, in order to improve the participation and support received by patients.

DM2 sufferers need a support and care network to cope effectively with the disease. Because it is chronic, it requires the patient to change their lifestyle. It is up to the professionals involved in their care to provide the necessary guidance and structure to meet their needs. This will not always be a simple task, but understanding the client's needs and being aware of the changes that are necessary must always be a priority so that action can begin to be taken on the client's behalf.

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