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# Difficulties Found by Persons Living with Diabetes Mellitus: a Quantitative Analysis

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## **Abstract**

**Goal:** To know the main difficulties faced by DM patients, characterizing the socioeconomic situation of the interviewees, identifying the type of care received by DM patients.

**Method:** It was a research of the descriptive exploratory type with quantitative approach that was carried out in the Basic Health Care of the city of Camutanga/PE. The population was formed by one hundred (100) diabetic patients enrolled at the FHS of said municipality, the sample will be formed by one hundred (100) of diabetics from UBS Mini Posto. The instrument for data collection was a form. The data collection took place in September and October 2016 after approval by the Research Ethics Committee of the Faculdade de Enfermagem Nova Esperança (FACENE). CAAE: 59111616.1.0000.517

**Results and Discussion:** the data obtained in the research show that 65% of the study participants are between the age group over 65 years; 67% have primary education; 53% are retired; 62% reported receiving a minimum wage. About the data related to the issue 31% report that they have diabetes between 05 to 10 years; 79% prevail with type 2; 100% make use of medication; 43% use glibenclamide and metformin.

**Conclusion:** In view of the foregoing, it is concluded that this municipality presents several positive points in caring for the patients, but there are still gaps to provide adequate care to the carriers.

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## Keywords

Diabetes Mellitus; Primary Health Care; Nursing.

# Introduction

Diabetes mellitus (DM) is a disease characterized by elevated blood glucose (hyperglycemia), is a set of metabolic disorders of different etiologies, resulting from decreased tissue sensitivity to insulin action and deficiency of its secretion [1].

The etiological classification is represented as: type I and II, other types and gestational. Type I has an insulin deficiency due to destruction of pancreatic B cells by immunological process, that is, the formation of antibodies by the organism itself, with more susceptibility in children and young people. Type II affects about 90% of diabetic patients. It is a heterogeneous syndrome with diverse pathogenesis, involving genetic and environmental factors, resulting in defects in the secretion and action of insulin [2].

DM is a relevant public health problem that establishes an important and growing burden on the world health system, due to the prevalence of increasing numbers of people living with DM worldwide, where the disease is growing, and aging of the population, but it is possible to significantly reduce the incidence of new cases of diabetes through measures of interventions such as physical exercise, healthy eating and weight reduction in patients with changes in glycemic homeostasis [3].

The number of adult DM worldwide has quadrupled in less than four decades to 422 million in 2014 and that between 1980 and 2014, diabetes has become more common among men than women and that DM rates have increased significantly in many low-and middle-income nations. The incidence in Brazil the number of diabetics is of 12,054,827, result according to IBGE Census in 2010 [4].

As for the difficulty that the DM patient experiences is related to diet therapy, in relation to the change in eating habits, the socioeconomic factor of some patients is unable to perform the acquisition of foods relevant to the diet. Adherence is another challenge related to the consequences of reactions, difficulty in administering correct use of prescription

and access to medicines. A relevant factor is the caregiver's question, since in some cases there is family dependence to follow the treatment [5].

Resulting from the reality of the incidence and prevalence of diseases was created in 1994 Family Health Program (PSF). Nowadays, it is no longer characterized as a program, but rather a Family Health Strategy (ESF), surpassing health care models, whose objective is to develop types of work, processes that benefit the community in a humanized way, and that interfere directly In the relation between the health workers, for a qualified and resolutive assistance being a strategy of reorientation of assistance model. Its organizational guidelines are operationalized through the deployment of multiprofessional teams in basic health units. This team is responsible for tracking a defined number of families, located in a delimited geographical area. Developing actions to promote health, prevention of diseases, provision of specific care for the family, preparation of a diagnosis of the area of action, articulation of intersectoral actions, promotion of mobilization [6].

From the diagnosis of confirmed DM, the bearer will be registered in HIPERDIA, which is a registration and monitoring system, where all the information will be obtained with advantages for the public managers, enabling to know the epidemiological profile of the diabetic population and thus facilitating the development of strategies Of interventions, ensuring the distribution of prescription drugs, participation in preventive and health promotion actions, thus preventing risk complications [7].

In Athaniel's (2010) conception he has contributed in the accomplishment of educational campaigns, approaching the risk factors, programming activities of leisure and physical activity. It promotes meetings and conversational wheels where they exchange experience. Priority is given to the control, treatment and rehabilitation of DM diseases, being the responsibility of the diagnosis, adherence, monitoring and availability of the medication, with the

aim of improving the quality of life of patients with this pathology [8].

In view of the above: What are the main difficulties faced by people with Diabetes Mellitus?

Therefore, it was aimed to know the main difficulties faced by patients with Diabetes Mellitus.

# Method

An exploratory-descriptive study, with a quantitative approach for a better understanding and analysis of the data obtained according to the original research.

The methodology is the application of procedures and techniques that must be observed for the construction of knowledge, with the purpose of proving its validity and utility in the various spheres of society [9].

Quantitative research considers that all data can be quantified, including opinions from an interview, for example, which must be translated into numbers, to be classified and analyzed. It is a kind of research aimed at the generalization and objectification of the data, making them measurable, measured. It is, therefore, a method based on experimentation, measurement and strict control of the data. Therefore, the position of the researcher should be that of neutrality against the object of study [10].

The research was carried out at the Primary Health Care of the city of Camutanga/PE. The municipality of Camutanga is located in the city of Camutanga, which is 113 km² away. Its population is 8,428, occupying an area of 39 km², it is limited to the north and east with a municipality of Itambé/PE and the state of Paraíba to the south With the municipality of Ferreiros/PE, and to the west with the municipality of Timbaúba/PE.

The municipality of Camutanga is composed of three Basic Health Units (UBS), two in the urban area: UBS Mini-station, located in the center of the city with 1,039 families, with a public of 250 diabetic patients (2 children, 19 insulin-dependent); UBS Alto Santa Terezinha, with 1,159 families, 94 diabetic patients (22 insulin dependent) and one unit in the rural area, UBS Engenho Paraíso, with 454 families, 28 diabetics (with only 1 insulin dependent).

The population is a set of all the elements upon which some information is desired. A sample is a subset of the population surveyed, to which desired information is observed and through which population characteristics are estimated [11].

The study population consisted of patients with Diabetes Mellitus who attended the Basic Attention of Camutanga, where the sample consisted of 100 (one hundred) diabetic patients from UBS Mini Posto because it was USB with more diabetic patients.

Inclusion Criteria: All the patients with Diabetes Mellitus registered in Primary Care, with psychological and cognitive conditions for this procedure and who signed the Free and Informed Consent Term - TCLE.

The instrument for data collection was a form divided into two parts: the first with data related to the socio-demographic characterization of the participants interviewed, such as: marital status, schooling, occupation/occupation, family income; and the second part, data related to the theme.

Data collection was formalized through the approval of the Research Ethics Committee of the Faculdade de Enfermagem Nova Esperança (FACENE) CAAE: 59111616.1.000.517, respecting the following steps: 1) Contact with the Coordination of Primary Care of the city of Camutanga/PE; 2) Contact with the nurses of the BHU to explain the intention of the research; 3) Contact with selected diabetics for the research and appointment scheduling; 4) After all these steps were taken, data collection was carried out in the months of September and October 2016.

The data were analyzed in a quantitative. As far as the quantitative approach is concerned, it is a set of tests, established with scientific and statis-

tical criteria, in order to determine the influence of several variables on the results of a given system or process. The tests and procedures were conducted in a planned manner, characterized by the control action on the independent variables, whose effects we wish to test and to know in the dependent variables, mainly diffused in biological science, are the requirements of an experimental procedure [11].

The present study respected the ethical aspects recommended by Resolution CNS 466/12, in art. III, which implies respect for the research participant in their dignity and autonomy, recognizing their vulnerability, ensuring their willingness to contribute and remain, or not, in research, through the Informed Consent Term, as well as Resolution COFEN 311/2007, which deals with the Code of Ethics of Nursing Professionals [12, 13].

# **Results and Discussion**

**Table 1** shows the diabetes patients included in this study, which, in relation to the age group, shows that of the 100 interviewees predominated was over 65 years, with 65% of them.

Given these results, Santo (2012) clarifies that the number of diabetic individuals is increasing due to population growth and aging, greater urbanization, increasing prevalence of obesity and sedentary lifestyle, as well as the greater survival of patients with DM. For the author, quantify the current prevalence of DM and estimate the number of people with diabetes in the future and important, since it allows to plan and allocate resources in a rational way [14, 15].

In Brazil, the prevalence of diabetes in 1980 was approximately 8% of the adult population (30 to 69 years old) living in urban areas. Based on this estimate, a figure of about 5.5 million diabetic individuals in the country can be expected. Today, it is believed that about 5.9% of the Brazilian population suffers from this disease, which affects 12% of

**Table 1.** Distribution of the sample (n = 100) according to the socioeconomic characteristics of the patients with diabetes interviewed Camutanga/PE, 2016.

| Camatanga/1 L, 2010.                |     |     |
|-------------------------------------|-----|-----|
| Variables                           | f   | %   |
| Age group                           |     |     |
| 18 – 25 years                       | 03  | 03  |
| 26 – 35 years                       | 06  | 06  |
| 36 – 45 years                       | 09  | 09  |
| 46 – 55 years                       | 25  | 25  |
| 56 – 65 years                       | 16  | 16  |
| Marital status                      |     |     |
| Married                             | 67  | 67  |
| Single                              | 07  | 07  |
| Divorced                            | 02  | 02  |
| Stable union                        | 08  | 08  |
| Widow                               | 16  | 16  |
| Education                           |     |     |
| Non-literate                        | 26  | 26  |
| Elementary School Incomplete        | 44  | 44  |
| Complete primary education          | 11  | 11  |
| Incomplete high school              | 11  | 11  |
| High School Completo                | 07  | 07  |
| Full Higher Education               | 01  | 01  |
| Profession/Occupation               |     |     |
| Student                             | 02  | 02  |
| From home                           | 20  | 20  |
| Farmer (a)                          | 14  | 14  |
| factory worker                      | 02  | 02  |
| Public server                       | 05  | 05  |
| Painter                             | 01  | 01  |
| Hair stylist                        | 01  | 01  |
| Helpdesk                            | 01  | 01  |
| Retired/Pensioner                   | 53  | 53  |
| Front desk clerk                    | 01  | 01  |
| Family income                       |     |     |
| Less than minimum wage              | 27  | 27  |
| A minimum wage                      | 62  | 62  |
| Two minimum wages                   | 05  | 05  |
| Above two minimum wages             | 06  | 06  |
| Total                               | 100 | 100 |
| <b>Source:</b> Direct Search, 2016. |     |     |

the individuals in the range analyzed in the previous multicentre study (30 to 69 years). Currently, approximately 150 million people are carriers of diabetes worldwide and this number may double by 2025 [14].

Regarding marital status, the table above shows a significant percentage of respondents who declared to be legally married. Where 67% (67) of them emphasized being married, 07% (07) were single, 02% (02) were divorced, 08% (08) reported stable marriage and 16%.

In relation to schooling, a reasonable number of participants in this sample who were not literate were observed in **Table 1**, so that 26% (26) of them emphasized not being literate and 44% (44) had incomplete elementary education. It was observed, therefore, that among the diabetics interviewed in this study, the prevalence is with a low level of schooling, thus, greater difficulties to acquire knowledge and viable benefits for their pathology, basis for the adequate management of care and for the adoption of Preventive measures to their complications.

Given the context, the proportion of people with high school and higher education who declared themselves to be caring for their feet, such as the use of emollients, when compared to those who only attended elementary education was significantly higher. The prevailing low schooling can be understood as reducing the access to information about the treatment, favoring the development and complications of the disease [1]. Regarding the profession, the table above shows the distribution of the interviewees, predominantly the retirees with 53% (53) are retired.

From the moment the person is diagnosed with Diabetes mellitus, he has special needs. Needs to adapt to new habits, which involve healthy eating, physical activity and medication use. For those who work, receiving the diagnosis of diabetes results in the need to reconcile self-care actions with the work routine. With this, many end up facing difficulties

and retiring early, due to chronic complications, which can lead to deficiencies. In this sense, diabetes can compromise performance at work with manifestation of acute symptoms such as sweating, tiredness and drowsiness. As they choose not to tell that they have diabetes, changes in their behavior and performance, due to changes in blood glucose, can be misinterpreted by employers and co-workers, and may compromise their permanence in work [16, 15].

Regarding the family income, it was observed in table 1 that the majority of the participants of this research 62% (62) reported receiving a minimum wage. It was observed that most had no affordable financial conditions for a good and adequate quality of life according to which is ideal for the person with diabetes.

The family income is a factor that can help in the prevention and treatment of some chronic diseases such as diabetes, allied to the income that interferes directly in the beginning and maintenance of the treatment of the patients with this affection, both of which may be intervention points in the reality of the people with diabetes [17]. (Table 2)

**Table 2.** Distribution of the sample (n = 100) according to the questions related to the time of diagnosis, type of diabetes, medication use, medication used and place where it acquires such medication. Diabetes Mellitus. Camutanga/PE, 2016.

| Variables        | f  | %  |
|------------------|----|----|
| Diagnostic time  |    |    |
| Less than a year | 12 | 12 |
| 01 – 02 years    | 25 | 25 |
| 03 – 04 years    | 13 | 13 |
| 05 - 10 yeas     | 31 | 31 |
| Above 10 years   | 19 | 19 |
| Type of Diabetes |    |    |
| Type 1           | 17 | 17 |
| Type 2           | 79 | 79 |
| Do not know      | 04 | 04 |

| Variables                           | f   | %   |
|-------------------------------------|-----|-----|
| Use of Medication                   |     |     |
| Yes                                 | 100 | 100 |
| No                                  | -   | -   |
| Medication Used                     |     |     |
| Metformin                           | 23  | 23  |
| Glibenclamide                       | 18  | 18  |
| Insulin                             | 05  | 05  |
| Metformin + Glibencamide            | 43  | 43  |
| Metformin + Insulin                 | 02  | 02  |
| Glibenclamide + Insulin             | 03  | 03  |
| Metformin + Glibenclamide + Insulin | 06  | 06  |
| Place where you get the medication  |     |     |
| Health Center                       | 85  | 85  |
| Purchase                            | 09  | 09  |
| Basic pharmacy                      | 06  | 06  |
| Monthly                             | 20  | 20  |
| Quarterly                           | 29  | 29  |
| Semester                            | 40  | 40  |
| Yearly                              | 11  | 11  |
| Total                               | 100 | 100 |
| <b>Source:</b> Direct Search, 2016. |     |     |

Regarding the variable that refers to the time of diagnosis, 31% reported that the diagnosis was given from 05 to 10 years. The epidemiological pattern of the disease worldwide, especially type 2 diabetes, has changed in the last decades [14]. A disease that in the past has mainly affected older people today sees their proportional diagnosis growing among younger people, a shift attributed to changes in living habits, urbanization and the aging population. The increasing number of individuals diagnosed with diabetes and the frequency of complications associated with this disease have resulted in an increase in the number of hospital admissions.

The Institute of the Child with Diabetes (DCI) points out that in Brazil it is estimated that there are 10 million people affected by DM, and it is predicted that this figure will increase by 25% to 50% in the next years. In addition, there is a forecast that by 2025 the number of people living with DM will reach 350 million [18].

The variation between the types of diabetes is of 79% prevailing type 2. Between type 1 and type 2, it was also identified the Autoimmune Latent Adult Diabetes (LADA). Some people who are diagnosed with type 2 develop an autoimmune process and end up losing beta cells from the pancreas and also gestational diabetes a temporary condition that happens during pregnancy. It affects 2 and 4% of all pregnant women and implies increased risk of subsequent development of diabetes for the mother the baby [4].

According to 100% (100) people interviewed every person with diabetes makes use of medication to control blood glucose. Medications are substances that, when ingested, have the goal of lowering blood glucose and keeping it normal (fasting <100 mg/dl and postprandial <140 mg/dl). Under this broad concept, according to the main mechanism of action, oral antidiabetics can be separated into: those that increase pancreatic insulin secretion (sulphonylureas and glinides); Those that reduce the rate of absorption of glycines (inhibitors of the alfaglicosidases); Those that decrease the hepatic production of glucose (biguanides); and/or those that increase peripheral use of glucose (glitazones) [4]. To these oral antidiabetics was added a new class of substances whose action is based on the effect of incretins. The incretin effect is mediated by GLP-1 (glucagon-like peptide-1) and GIP (Gastric Inhibitory Polypeptide) hormones considered glucose-dependent insulinotropic peptides. Thus, they are able to increase insulin secretion only when glycemia rises venously in non-diabetic persons [19].

The variable on Medication Used, showed that 43% (43) used metformin and glibenclamide. The goal of treatment of diabetes mellitus (DM1 or DM2) is to maintain blood glucose throughout the day within the limits of normality, avoiding to the maximum the glycemic variability. The use of insulin is essential in the treatment of DM1 and should be instituted as soon as the diagnosis is made [19].

When the patient is diagnosed with type 2 diabetes mellitus (DM2) along with measures that guide appropriate modifications in their lifestyle (health education, food and physical activity), the doctor usually prescribes an oral antidiabetic agent, are substances that, when ingested, have the purpose of lowering blood glucose and keeping it normal (fasting <100 mg / dl and postprandial <140 mg/dl) [4, 20].

The variable shows the distribution of the place where to acquire medication it was observed that the majority 85% (85) people acquire at the health post. In relation to public services, governments and leaders discuss the issue of drug supply and financing strategies, but few recognize that medicines are only a tool for delivering a service and generally do not care about structuring and Organization of this. The majority of pharmacies at the Basic Health Units (UBS) do not count on the presence of the pharmacist who could provide better assistance to the health user, presents reduced physical space and works mostly as a storage place for medicines and many Of the times, it has served only as a medicine delivery place, and there is no pharmaceutical-user interaction [21].

The variant referring to Frequency of fasting glycemia 40% (40) of the patients reported to perform the semiannual exam. In order to prevent the occurrence of complications associated with DM, such as the American Diabetes Association and the Brazilian Diabetes Society (SBD) have suggested some recommendations, such as the use of carbohydrate counting, self-monitoring of glucose, Greater disease control [4]. (Table 3)

The variable performance of the diet shows the distribution and most 78% adhered to the diet. Abrupt food modification has an impact on the way of life of people with DM, since a new routine that involves strict discipline of food planning is necessary. Often there is a need to get in touch with feelings, desires, beliefs and attitudes so that there are modifications of the habits of life that were once consolidated. The DM causes significant

**Table 3.** Sample distribution (n = 100) related to diet and adherence, professional orientation and frequency of physical activities. Camutanga/PE, 2016.

| Variables                               | f               | %    |
|---|-----------------|------|
| Dieting                                 |                 | 70   |
| Yes                                     | 78              | 78   |
| No                                      | 22              | 22   |
| Total                                   | 100             | 100  |
| Type of Diet                            | 100             | 100  |
| Carbohydrates and lipids                | 10              | 10   |
| Lipids and proteins                     | 16              | 16   |
| Proteins and carbohydrates              | 07              | 07   |
| Carbohydrates, lipids and proteins      | 67              | 67   |
| Total                                   | 100             | 100  |
| Reason for non-adherence to diet (n :   |                 |      |
| Lack of family support                  | 04              | 18   |
| Own option                              | 14              | 64   |
| Do not accept diet                      | 04              | 18   |
| Total                                   | 22              | 100  |
| Professionals involved in diet orientat |                 |      |
| Nutritionist                            | 29              | 29   |
| Doctor                                  | 30              | 30   |
| Endocrinologist                         | 01              | 01   |
| Nurse                                   | 06              | 06   |
| Health agent                            | 06              | 06   |
| They did not obtain                     | 28              | 28   |
| Total                                   | 100             | 100  |
| Realization of physical activity        |                 |      |
| Walking                                 | 14              | 14   |
| None                                    | 86              | 86   |
| Total                                   | 100             | 100  |
| Frequency of physical activity          |                 |      |
| Seven times                             | 02              | 02   |
| Five times                              | 05              | 05   |
| Four times                              | 03              | 03   |
| 3 times                                 | 04              | 04   |
| Does not perform                        | 86              | 86   |
| Total                                   | 100             | 100  |
| Reasons for not doing physical activit  | ies (n = $86$ ) |      |
| Comfort                                 | 38              | 44,1 |
| Impaired health                         | 27              | 31,4 |
| Lack of time                            | 21              | 24,5 |
| Total                                   | 86              | 100  |
| <b>Source:</b> Direct Search, 2016.     |                 |      |

changes in the relation that the affected person establishes with their own body and with the world that surrounds it, being that the restrictions in the feeding behavior makes it more aware of its limitations. For this reason, the conflict between the desire to eat and the imperative need to contain it is always present in the daily life of the person with diabetes [5].

The variable referring to the type of diet, most 67% have confirmed that they consume carbohydrates, lipids and proteins. The acceptance of a balanced diet is determinant in glycemic control and in the elevation of the quality of life, since normal blood glucose levels prevent and delay the appearance of chronic complications caused by the evolution of DM [2].

DM causes significant changes in the relationship that the affected person establishes with their own body and with the world around them, and the restrictions on eating behavior make them more aware of their limitations. For this reason, the conflict between the desire to eat and the imperative need to contain it is always present in the daily life of the person with diabetes [2].

In the variable "reason for not adhering to the diet" 64% (22) of the interviewed patients with diabetes emphasize by their own choice do not accept the diet. Abrupt food modification has an impact on the way of life of people with DM, since a new routine that involves strict discipline of food planning is necessary. Often there is a need to get in touch with feelings, desires, beliefs and attitudes so that there are modifications of the habits of life that were once consolidated [5].

Family dependence for self-care becomes a negative moment for the diabetic, but it can be less painful if the family and patient receive support from the multiprofessional health team [5].

In the variable "professionals involved in diet orientation", respondents report that 29% (29) people were attended by a nutritionist and 30% (30) people per doctor. Health education is a set of

knowledge and practices aimed at disease prevention and health promotion that must be used effectively, since education is humanizing. It is a resource through which scientifically produced knowledge in the field of health, mediated by health professionals, reaches the daily life of the people, once the understanding of the determinants of the health disease process offers subsidies for the adoption of new Habits and health behaviors. Educating for health means going beyond curative care means giving priority to preventive and promotional interventions [22].

Regarding the physical activities, it was observed in **Table 2** that 14% (14) of the interviewees performed such activity, and most of them 86% (86) reported not practicing any type of physical activity.

In relation to the practice of physical activity, it is necessary to take a more effective approach on the importance of the introduction and intensification of this practice in the daily life of the participants of the research, considering the particularities of each person in this process. Although they are developing some physical activity, it is still performed at a lower frequency than expected for such age group [23].

As to the frequency of physical activities, the table above shows that 2% (02) of the participants included in this study reported attending seven times, 5% (05) five times, 3% (03) four times, 4% 86% (86) emphasized not performing physical activities.

Adequately prescribed physical activity seems to be able to ensure the maintenance of these qualities, prolonging functional independence and improving the quality of life being an effective means to maintain and improve cardiovascular functions and, therefore, physical performance [24, 20]. In addition, it plays a key role in the prevention and treatment of various chronic degenerative diseases, in particular hypertension and/or DM, thus contributing to an increase in life expectancy and independence.

As to the reason for not performing the physical activities of the participants of this study, it was

verified in (n = 86) that 44.1% (38) stressed not to practice for comfort, 31.5% (27) emphasized because of impaired health, 24.5% (21) reported lack of time.

The lack of physical activity results in a sedentary life, since regular physical activity is indicated for all patients with diabetes, thus improving the metabolic contole, reducing the need for hypoglycemic agents, helping to promote weight loss in obese patients, Decreases the risks of cardiovascular disease and improves the quality of life. Thus the promotion of physical activity is considered a priority. Regular exercise is important for diabetic patients and provides multiple health benefits. Physical activity can improve the metabolic response and also how it can lower the rate of blood glucose [25]. (Table 4)

Regarding diabetes, it was found that 27% (27) of them reported that they were in the way and 73% (73) reported that they did not interfere with their daily lives. 41% (11) of them reported traveling, 08% (30) working, 06% (22) food preparation, 02% (07) driving.

In view of these results, it was observed that the quality of life by the way people live, feel and understand their daily life, thus involving health, education, transportation, housing, work and participation in the decisions that concern them [28].

Work activities are important for the existence of man and his relation to the material and psychic world, for through them, The human being coexists and relates to the external environment; Individuals seek to satisfy their needs, that is, they seek pleasure and avoid suffering [5].

Regarding the feelings of sadness that the DM may have caused the interviewees, 62% (62) report not being affected, but a high percentage presents symptoms of sadness, represented by 38% (38) of the patients.

Given the symptoms of depression, such as depressed mood, decreased interest, loss of energy, difficulty concentrating but not meeting the criteria for major depressive disorder (MDD), Are quite common among diabetic patients and are associated

**Table 4.** Distribution of the sample (n = 100) according to the issues related to the occurrence of complications, hospitalizations, coping with the difficulties, frequency of users to the BHU and information transfer. Camutanga/PE, 2016.

| tariga/PE, 2016.   |     |     |
|--|-----|-----|
| Variables  | f   | %   |
| Occurrence of DM complications                                 |     |     |
| Retinopathy  | 34  | 34  |
| Nephropathy  | 02  | 02  |
| Cardiopathy  | 80  | 08  |
| Diabetic foot  | 02  | 02  |
| Others   | 39  | 39  |
| No complications   | 15  | 15  |
| Occurrence of hospitalization                                  |     |     |
| Yes  | 51  | 51  |
| No   | 49  | 49  |
| Reason for hospitalization (n = 51) $*$                        |     |     |
| Hyperglycemia  | 37  | 37  |
| Hypoglycemia   | 08  | 08  |
| Hyperglycaemia/hypoglycemia                                    | 05  | 05  |
| Difficulties faced by DM patients                              |     |     |
| Blurred vision   | 31  | 31  |
| Asthenia   | 07  | 07  |
| Food acceptance  | 12  | 12  |
| No difficulties  | 50  | 50  |
| Frequency of visits to UBS                                     |     |     |
| Fortnightly  | 24  | 24  |
| Monthly  | 48  | 48  |
| Quarterly  | 13  | 13  |
| Semester   | 08  | 08  |
| Yearly   | 05  | 05  |
| Do not frequent this location                                  | 02  | 02  |
| Professionals involved in passing on guidelines to DM patients |     |     |
| Doctor   | 39  | 39  |
| Téc. Nursing   | 10  | 10  |
| Doctor and Nurse   | 29  | 29  |
| Doctor and Nursing Technician                                  | 22  | 22  |
| Information provided by professionals to users with DM         |     |     |
| Diet and medication  | 16  | 16  |
| Diet and prevention  | 16  | 16  |
| Diet, medication and prevention                                | 68  | 68  |
| Total  | 100 | 100 |
| <b>Source:</b> Direct Search, 2016.                            |     |     |

with decreased self-care. In addition, the increased risk of complications and early mortality is not limited only to those with MDD, but also extends to those with *subsyndromic* depression symptoms [4].

Still for the Brazilian Society of Diabetes, this suggests another growing relationship between the severity of depressive symptoms and a worse prognosis of diabetes than an effect of depression. Evidence for a longitudinal relationship between MDD and hyperglycemia over time is minimal, and changes in one of them do not appear longitudinally to be associated with changes in the other. Numerous studies have shown positive effects of improving depression in diabetic patients, but evidence showing a glycemic benefit is at best rare. Patients with diabetes mellitus have significantly higher rates of depressive symptoms, especially when developing complications such as foot ulceration.

When questioned about how to face DM, 70% (70) of the patients reported that they seek to face the disease by having fun; 19% (19) receiving support from family members and 11% (11) praying. There are several forms of coping.

The chronic disease brings with it successive losses of independence and self-control. The emergence of an incapacitating illness is an especially critical moment of confrontation for the family, as it affects all its members. In this sense, the family organization influences the behavior of its members and the state of health of each individual, in turn, also influences the functioning of the family unit. Studies have shown that the family is an institution of strategic importance in that it may or may not help a person with DM to properly manage the disease and achieve treatment goals [5].

In relation to the dropping of DM-related activities, it was observed in **Table 5** that 09% (05) of the respondents reported having stopped traveling, 75% (42) abandoned their food intake, 07% (04), work, 03 (02), sewing, 02% (01) walking barefoot, 02% (01) embroidering, 02% (01) driving.

The change in eating habits of the DM patient is one of the first aspects to be modified to control the disease. However, giving up eating the food you like in the desired amount is one of

**Table 5.** Distribution of the sample (n = 100) according to the questions related to the provision of guidelines, professionals involved in the transfer of information and daily life of diabetics. Camutanga/PE, 2016.

| Variables                             | f          | %   |
|---------------------------------------|------------|-----|
| DM disrupts daily life                |            |     |
| Yes                                   | 27         | 27  |
| No                                    | 73         | 73  |
| Total                                 | 100        | 100 |
| Tasks impaired by the presence of DN  | 1 (n = 27) |     |
| Travel                                | 11         | 41  |
| Work                                  | 08         | 30  |
| Food preparation                      | 06         | 22  |
| To drive                              | 02         | 07  |
| Total                                 | 27         | 100 |
| Feeling of sadness on the part of the | diabetics  |     |
| Yes                                   | 38         | 38  |
| No                                    | 62         | 62  |
| Total                                 | 100        | 100 |
| How to deal with Diabetes             |            |     |
| Being supported by family members     | 19         | 19  |
| Praying                               | 11         | 11  |
| Having fun                            | 70         | 70  |
| Total                                 | 100        | 100 |
| Abandonment of pleasure activities d  | lue to DM  |     |
| Yes                                   | 56         | 56  |
| No                                    | 44         | 44  |
| Total                                 | 100        | 100 |
| Activities abandoned due to DM (n =   | 56)        |     |
| Travel                                | 05         | 09  |
| Intake of some foods                  | 42         | 75  |
| Work                                  | 04         | 07  |
| To sew                                | 02         | 03  |
| Walk barefoot                         | 01         | 02  |
| Embroider                             | 01         | 02  |
| To drive                              | 01         | 02  |
| Total                                 | 56         | 100 |
| <b>Source:</b> Direct Search, 2016.   |            |     |

the most significant points for the person with diabetes [5].

Among the complications triggered by diabetes mellitus is the "diabetic foot" that constitutes a public health problem, due to the frequency with which it occurs and the high cost of treatment. Therefore, diabetic foot can cause great losses to the client, from restrictions on their daily and professional activities, low self-esteem, psychological damages, greater need of family support, financial expenses with their treatment and hospitalizations [29].

Although the work is a great means of social and personal fulfillment of the man, for the diabetic the complications of the disease make difficult his work activities, which generates discomfort and suffering. Although the work is a great means of social and personal fulfillment of the man, for the diabetic the complications of the disease make difficult his work activities, which generates discomfort and suffering [5].

# **Conclusion**

This study made it possible to identify the difficulties faced by patients with Diabetes Mellitus in the municipality of Camutanga/PE. It is known that the Family Health Strategy plays an important role in the prevention of chronic noncommunicable diseases (CNCD).

However, it is still a challenge for the health team, related to the confrontation of DM patients in relation to acceptance of adequate diet, physical activities and mainly family support, which do not participate in the educational activities promoted by the health team. Since this makes it difficult to establish links between professionals, clients and family.

Considering that physical exercise is of great importance in the glycemic control of patients with diabetes, regardless of whether or not they use medication, a change in quality of life is essential

for the reduction of hospitalizations and morbidities. Thus, it is expected that with the outcomes of this research may be favoring a construction of new actions, providing the best for those with Diabetes.

With the results obtained in this research it was verified a coverage of 100% of patients with DM, in adherence to medications. However, there were important quantifiers related to the difficulties faced by them regarding the abandonment of pleasurable activities such as: food intake in 75% and mainly the blurred vision which hinders their daily tasks.

In view of these findings, it is suggested the need for a strategy aimed at the educational activities together with DM and family members in the city of Camutanga, since the present study presented an important quantitative of the participants of this research in 86% who do not practice physical activities. To this end, the primary care nurse should be involved in his role as educator and counselor, and should consider all forms of promotion, prevention and rehabilitation of those with diabetes who need to know about the importance of these activities in improving the quality of life.

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