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ORIGINAL ARTICLE

QUALITY OF LIFE OF PEOPLE IN LIVING GROUPS WITH DIABETES MELLITUS TYPE 2

QUALIDADE DE VIDA DE PESSOAS EM GRUPOS DE CONVIVÊNCIA COM DIABETES MELLITUS TIPO 2

CALIDAD DE VIDA DE PERSONAS EN GRUPOS DE CONVIVENCIA CON LA DIABETES MELLITUS TIPO 2

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ABSTRACT

Objective: evaluating the quality of life of people with diabetes mellitus type 2. ***Method:*** a descriptive, cross-sectional study of a quantitative approach, performed with 141 diabetic inserted in social groups. Data collection was conducted in august/september 2012 through sociodemographic data form and *Medical Outcomes Study Short Form-36 Healthy Survey*, analyzed by descriptive statistics through tables. The research project was approved by the Research Ethics Committee, CAAE 05381712.5.0000.5350. ***Results:*** higher score was observed in the general health (less depreciation) and the lowest in the physical aspect (higher depreciation). Regarding self-rated health, 70,22% perceived their health as good. ***Conclusion:*** diabetic patients present depreciation in the fields of QOL. Thus, to assess QOL enables the planning of health promotion and prevention of complications in order to enabling him to healthier choices, with a view to improving QOL. ***Descriptors:*** Quality of Life; Diabetes Mellitus; SF-36.

RESUMO

***Objetivo*:** avaliar a qualidade de vida de pessoas com diabetes mellitus Tipo 2. ***Método*:** estudo descritivo, transversal de abordagem quantitativa, realizado com 141 diabéticos inseridos em grupos de convivência. A coleta foi realizada em agosto/setembro de 2012, por meio de Formulário de dados sociodemográficos e *Medical Outcomes Study Short Form-36 Healthy Survey*, analisados pela estatística descritiva por meio de tabelas. O projeto de pesquisa foi aprovado por Comitê de Ética em Pesquisa, CAAE 05381712.5.0000.5350. ***Resultados*:** maior escore foi verificado no estado geral de saúde (menor depreciação) e o menor no aspecto físico (maior depreciação). Quanto à autopercepção de saúde, 70,22% perceberam sua saúde como boa. ***Conclusão*:** diabéticos apresentam depreciação nos domínios da QV. Dessa forma, avaliar a QV possibilita o planejamento de ações de promoção da saúde e prevenção de complicações, de maneira a capacitá-lo para escolhas saudáveis, com vistas à melhoria da QV. ***Descritores*:** Qualidade de Vida; diabetes mellitus; SF-36.

RESUMEN

Objetivo: evaluar la calidad de vida de las personas con diabetes mellitus tipo 2. ***Método:*** un estudio descriptivo, transversal de enfoque cuantitativo, realizado con 141 diabéticos insertado en grupos sociales. La recolección de datos se llevó a cabo en agosto/septiembre de 2012 hasta el Formulario de datos sociodemográficos y *Medical Outcomes Study Short Form-36 Healthy Survey*, analizados por estadística descriptiva a través de tablas. El proyecto de investigación fue aprobado por el Comité de Ética en la Investigación, CAAE 05381712.5.0000.5350. ***Resultados:*** la puntuación más alta se observó en la salud en general (menos la depreciación) y la menor en el aspecto físico (mayor depreciación). En cuanto a la percepción de la salud, 70,22% percibe su salud como buena. ***Conclusión:*** los pacientes diabéticos presente depreciación en los campos de la calidad de vida. Por lo tanto, para evaluar la calidad de vida permite la planificación de la promoción de salud y prevención de las complicaciones con el fin de permitirle a opciones más saludables, con el fin de mejorar la calidad de vida. ***Descriptores:*** Calidad de Vida; Diabetes Mellitus; SF-36.

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INTRODUCTION

Diabetes mellitus (DM) is a chronic disease with high prevalence; high mortality rates and is a public health problem. Defined as a chronic disorder of carbohydrate metabolism, lipids and proteins and characterized by a high concentration of blood glucose due to insulin deficiency, DM stands out for its potential for the development of acute and chronic complications, micro and macrovascular if not appropriately treated.[1,2]

Diabetes mellitus affects over 200 million people worldwide and it is estimated that in the Brazilian population today exists about 12 million diabetics.[3] Its chronic disorders, such as ocular, renal and vascular diseases, are common causes of hospitalization and absenteeism at work, even can cause disability and incapacity to work.[3]

The chronic nature of diabetes, severity of its complications and the means to control them make this very expensive disease to the health system.[4] However, consequences such as pain, anxiety, inconvenience and implications for quality of life interfere in the lives of patients and families and are difficult to quantify. In addition to directly compromise the quality and the lifestyle, the DM can also dramatically reduce the life expectancy of this population; affect the metabolic control that can increase the complications of the disease.[5]

There is concern about the quality of life (QOL) of patients with DM. Although, the development of new treatments and technologies allow these users to live with the disease for longer periods of time, the need for change of lifestyle and adequate control of blood glucose influences how the diabetic patient evaluates their well -being and their QOL.[6,7] Defined as "the individual's perception of their position in life in the context of culture and value systems in which they live, and in relation to their goals, expectations, standards and concerns"[8:1405], QOL is strongly marked by subjectivity and covers all the essential components of the human condition, whether physical, psychological, social, cultural or spiritual.

It is considered that the assessment of QOL enables health professionals adjust their practices and maintain diabetic life with quality. Still, studies related QOL can bring knowledge to improve the quality of health interventions for these patients as well as assist in the planning and implementation of actions that can, effectively, promote the improvement of QOL of the individuals.

OBJECTIVE

- Evaluating the quality of life of people with type 2 diabetes mellitus.

METHOD

This is a descriptive, cross-sectional study of a quantitative approach. The study enrolled 141 diabetic patients who met the inclusion criteria, namely: members of community groups for diabetics linked to the Cerro Largo Family Health Strategy, Dr. Mauricio Cardoso and Ijuí, municipalities of Rio Grande do Sul, the Northwest Region; being 18 years old; registered as having type 2 diabetes in their health units in HIPERDIA System (Registration and Monitoring Hypertensive Diabetics) system.

The sample was defined by convenience and data collection was carried out in August and September 2012, for three academic course of pharmacy, previously trained and qualified to do so, through interviews scheduled individually. The instruments used in the collection include sociodemographic data form and Medical Outcomes Study Short Form-36 Healthy Survey (SF-36), which was designed to evaluate the quality of life, translated and validated in Brazil in 1997.[9]

This instrument measures dimensions of physical and mental health through 11 questions and 36 items covering eight components (domains or dimensions), represented by the functional capacity (10 items), physical (4 items), pain (2 items) general health (5 items), vitality (4 items), social functioning (2 items), emotional aspects (3 items), mental health (5 items) and a comparative question about the current general health and the year before the interview. The results are represented in scores ranging from 0 to 100, with 0 (worst health status) to 100 (best health status).[9]

After collection, it was built a database spreadsheet Excel 2007 (Office XP) and these were later analyzed electronically using descriptive statistics. In conformity with the Guidelines and Regulatory Research Involving Human Subjects Standards (CNS 196/96), was made available to participants of the Consent and Informed (IC), which was signed after the clarification about the nature of the research and authorizes the voluntary participation. [10] The project was approved by the Research Ethics Committee of the Regional University of Rio Grande do Sul State North West (UNIJUI), CAAE 05381712.5.0000.5350 under Opinion Embodied No 8236/2012.

RESULTS

The study included 141 patients with DM2, members of three municipalities' social groups, as described in Table 1.

Table 1. Number of diabetics and coexistence groups per municipality. Rio Grande do Sul, Brazil, 2013.

Municipality	Number of diabetics	Number coexistence groups
Cerro Largo	33	01
Dr Mauricio Cardoso	32	03
Ijuí	76	04
Total	141	08

Among the diabetic groups who joined the study, six of them are in urban areas and two groups are located in the countryside.

Following, in Table 2, are expressed sociodemographic variables of the study subjects.

Table 2. Sociodemographic characteristics of diabetics entered in groups of shared experiences of the municipalities of Cerro Largo, Dr. Mauricio Cardoso e Ijuí. Rio Grande do Sul, Brazil, 2013.

Variable	n	%
Gender		
Male	42	30
Female	99	70
Age (in years)		
27 -49	12	09
50-59	31	22
60-69	48	34
70-79	37	26
80-89	13	9
Marital status		
Married	79	56
Single	21	15
Widow	37	26
Divorced	4	3

To assessing the quality of life there were calculated fields of eight variables of the SF-36 questionnaire, namely: physical functioning, bodily pain, general health, vitality, emotional, social functioning and mental health. The values ranged between zero and one hundred and characterize major and minor negative impact of diabetes on QoL, as explained in Table 3.

Table 3. Quality of life scores (SF-36) of diabetics entered in groups of shared experiences of the municipalities of Cerro Largo, Dr. Mauricio Cardoso e Ijuí. Rio Grande do Sul, Brazil, 2013.

	General* Average±SD	Cerro Largo Average±SD	Dr.M.Card** Average±SD	Ijuí Average±SD
Functional Capacity	46,07±24,36	44,35±22,21	49,16±27,75	45,53±23,94
Physical aspects	43,51±29,19	35,61±27,80	42,19±27,73	47,50±29,76
Pain	58,39±26,30	56,86±27,06	59,07±26,99	58,77±25,99
General state of health	68,43±18,95	66,20±19,56	71,26±18,20	68,16±19,10
Vitality	56,74±19,15	54,56±17,90	65,16±17,60	54,00±19,49
Emotional aspect	43,78±28,69	38,79±28,01	41,67±25,62	46,84±30,13
Social aspect	67,01±22,68	64,66±21,93	71,85±20,99	65,91±23,68
Mental Health	66,35±18,29	63,29±20,24	72,74±14,53	64,88±18,43

*Sum of three municipalities; ** Dr. Mauricio Cardoso; SD= Standard Deviation.

Regarding self-rated health reported by respondents, the results were classified as excellent, good and bad, as described in Table 4.

Table 4. Self-perception of the state of health of diabetics users inserted into groups of shared experiences of the municipalities of Cerro Largo, Dr. Mauricio Cardoso e Ijuí/RS. Rio Grande do Sul, Brazil, 2013.

	Excellent		Good		Bad	
	n	%	n	%	n	%
General* (n=141)	9	6,38	99	70,22	33	23,40
Cerro Largo (n=33)	1	3,03	22	66,67	10	30,30
Dr. M. Card.** (n=32)	3	9,37	21	65,63	8	25,0
Ijuí (n=76)	5	6,58	56	73,68	15	19,74

*Sum of three municipalities; ** Dr. Mauricio Cardoso.

DISCUSSION

By analyzing data the predominance of DM type 2 patients were female (70%), which is in line with results from other studies. In cross-population based survey, which compared the prevalence of diabetes mellitus in 1.968 people aged 20 to 69 years old living in the urban area of Pelotas, State of Rio Grande do Sul, was found that the prevalence of diabetes is higher in women relation to men.[11] In another cross-sectional study base to assess the prevalence of self-reported diabetes in 872 elderly (60 and over), non-institutionalized, living in São Paulo, 60,3% were female.[12]

These results can be explained by the fact that men seek help less often on their health.[13] In addition, masculinity in general produces reflections in the health field, reveals difficulties especially as regards the promotion of preventive measures. Additionally, there is, in larger numbers, lack of knowledge about disease by humans.[14] Another factor that may be related to predominantly female sample is the fact that women participate more often in social groups, such as HIPERDIA groups. Thus, it was found that 85% of participants using these groups in Parobe-RS, were female.[15]

DM appears as an important cause of morbidity and mortality, especially among the elderly and the increase of this population is a universal phenomenon. In this study, 69% of respondents have more than 60 years old, a result similar to that found in a study that evaluated the QOL of type 2 diabetic patients and its relationship to sociodemographic and clinical variables (mean age of 60).[16] In this context the promotion of quality of life has been reorganized and emerged as strategy within the national public policy, which shows the need to know the quality of life of patients with chronic diseases, such as DM.[17]

In assessing the domains of QOL, the highest recorded scores is related to the general health (68,43 ± 18,95), Social Functioning (67,01 ± 22,68) and mental health (66,35 ± 18,29), which means that the DM had less impact on these dimensions. The general health status measures the concept of general health perception, and includes not only the current health but also resistance to disease and healthy appearance.[9] The social aspect analyzes the participation of individuals in social groups and this was compromised by health problems and mental health evaluates the presence of distress and psychological well-being.[9]

It is inferred that the subjects of this study can rely on family, friends or people who are part of their social networks, such as the support group and health professionals, to prove them social support and contribute to the perception of QOL. It can be said that these patients have good personal relationships and feel that they are supported socially. This is very important because it points out the possibility of these people get a good QOL in the field of social relations, despite the disease and treatment.

Different this was found by researchers that described the sociodemographic and clinical profile and assessed the quality of life related to health outcome (HRQOL) of individuals with DM.[18] In the study cited, the areas with highest scores were social aspects and pain. As pointed out, even though 64,7% of the patients reported moderate or severe pain, this did not affect the QOL.[18] It should be noted that the pain domain assesses its intensity and how it interferes with day to day activities of patients.[9]

A study investigating the specific quality of life of 75 patients with diabetes mellitus in two basic health units in São Paulo State, showed that the items related to the social burden domain were factors that potentially detractors of QOL.[19] In this area, the items with higher scores were the embarrassment to have diabetes, be called diabetic and have diabetes interfering with life of the family.[19] Based on this result, it points out that despite the progress achieved in the treatment and dissemination of scientific knowledge about diabetes, even there remains a tendency to label this condition as a constraint that stigmatizes the person as someone who has a disadvantage. This social stigma is often internalized by patients and it appears a depreciation factor of their QOL.[19]

The lowest scores were recorded on the physical aspects domain (43,51 ± 29,19) and emotional aspect (43,78 ± 28,69), which shows

that DM had a higher impact on these dimensions. The physical aspect measures the limitation due to physical health problems, the type and amount of work done. Includes limiting the usual type of tasks performed, the need to reduce the amount of work and the difficulty of doing things .[9] In dimension emotional aspect, the limitations are evaluated in the form and amount of work and as such limitations interfere with daily activities of individuals.[9] As shown responses in some ways the emotional problems interfere with work and activities of daily life of people with diabetes.

The similarity of this result, the study cited above, the physical aspect was the size with the highest negative impact of DM, followed by emotional aspects, and 79,4% reported having other health problems, which may have negatively influenced the score these dimensions.[18]

The chronic complications of diabetes occur primarily by excess glucose in the blood, which can cause injuries such as diabetic foot. This complication is considered a factor limiting the activities of diabetics because it prevents them to perform everything you would like, and be injured, with difficult healing and nerve damage responsible for the sensitivity and movement of limbs.[20] These complications can justify the score lowest in the field physical aspects observed in the present study.

Also in relation to physical aspects, in a study that evaluated the QOL of 20 patients with type 2 diabetes mellitus, 70% of them said they had difficulty performing tasks.[21] In a study that evaluated the QOL questionnaire through the World Health Organization Quality of Life (WHOQOL-Bref), and glycemic control of 120 patients with diabetes type 2 diabetes treated at the endocrinology clinic of a hospital in Sao Bernardo do Campo, the results indicated that the physical domain was the most affected with diabetes.[22]

By analyzing separately the municipalities, Cerro Largo possessed the lowest scores on seven areas, with the exception of vitality whose lowest score was obtained in the municipality of Ijuí. It is understood that QOL can be associated with the Human Development Index (HDI), which measures index briefly the long-term progress in three basic dimensions of human development: income, education and health.[23] However, this association cannot be confirmed with this study, since the three cities where this research was conducted, Cerro Largo (427) is best placed on the national HDI, followed by the city of Ijuí (503) and subsequently Dr. Mauricio Cardoso (1455º).[23]

It is noteworthy that the size vitality is assessed by levels of energy and fatigue, and captures the well-being differences. [9] Low values indicate that the person feels tired and exhausted most of the time and high values indicate that the person feels lively and full of energy. It is known that DM brings a feeling of tiredness and fatigue, and when there are significant changes in blood glucose the patient may experience drowsiness and muscle weakness. In this sense, physical activity is important because it reduces the risk of complications and helps maintain health, both physical and mental.

The importance of regular physical activity and systematic exercise for disease prevention and health promotion is proven, and this guided practice has been shown in conjunction with diet and medication for treatment of diabetes and helps in motivating and changing habits and behaviors.[24] Thus, physical activity may be an important element in the health of patients with DM, as weight control and increased physical activity decreases insulin resistance. In addition, physical activity, associated with diet, improves the lipid profile of individuals and the risk of developing other diseases such as cardiovascular.[25]

Ijuí owned its highest score in the general state of health domain and lower functional capacity, Dr. Mauricio Cardoso highest score in the lowest and mental health in the emotional aspect domain and Cerro Largo, the highest score was in general health and the smaller in physical aspects. Mental health is related to anxiety, depression, and loss of control in behavioral or emotional terms and psychological wellness.[9] Its match strategy is limitation in health due to emotional problems, the type and quantity of the work performed. Still includes limiting the usual type of tasks performed, the need for reducing the amount of labor and the difficulties to carry out the tasks.[9]

Associated with DM, depression has been assessed as a related variable and people with DM have more likely to develop depression than non-diabetics. In addition, the literature has revealed the relationship between depression and poor adherence to treatment among people with DM.[26] In a study that examined the association between depressive symptoms and sociodemographic and clinical variables, and adherence to drug therapy in people with type 2 diabetes, approximately half participants tended to trigger depression and higher depression, lower presented itself

to join the treatment.[27] This association may explain the low scores related to emotional aspects seen in the present study.

Regarding self-rated health was found that 70% of respondents generally consider their good health. Already alone, the municipality of Cerro Largo, had a higher percentage of DM2 patients who consider their poor health, which may be related to poorer quality of life demonstrated by the scores. In a study to evaluate the QOL of 30 hypertensive and diabetic, in a city of mining inside with the WHOQOL-bref, 46,67% rated their QOL intermediate form and 36,67%, good.[28] As refers to the satisfaction of individuals in relation to their own health, the same researchers found that 33,3% were satisfied, 30,0%, neither satisfied nor dissatisfied and 20% dissatisfied.[28]

The DM can lead to a depreciation of QOL, as is reflected in their different aspects, such as weak physical state, impaired functional capacity, lower limb pain, lack of vitality, difficulties in social relationships, emotional instability, among others. In this sense, assess their health as poor indicates that it is necessary to identify the factors responsible for the negative perception of the health condition and propose educational actions to minimize them. This is because the positive self-perceived health enables greater involvement of individuals in relation to the treatment and control of disease, with prospects of cure or maintenance of clinical.[28]

Educational programs with diabetes themes have been suggested as a care strategy that contributes to improve the indicators related to the perception of the physical aspects, functionality, pain, general health, and vitality, social, emotional and mental health that affect the QOL of patients. Meanwhile, a study conducted at the national level showed a slight improvement in almost all areas of a generic QOL scale and found that participants improved their perception of their general health after participation in an educational program.[29]

The assessment of QOL of people with chronic health conditions is important to the understanding of broader health problems and to develop individualized strategies to improve care, it can even be integrated into the annual reviews.[30] This is because QOL can be influenced by the perception that individuals have about their health, that is, depends on the emotional interpretation that each individual makes of facts and events and is related to the subjective perception of events and living conditions.

CONCLUSION

Diabetic patients present depreciation of their QOL in different domains. Thus, assessing the most affected dimensions or have higher scores enables the planning of health promotion and prevention of complications in order to enable him to healthier choices in their daily lives, with a view to improving QOL. The different health professionals know it is the range of factors that affect the management of DM in order to plan, in conjunction with individuals, a care that fits your needs.

The findings discussed in this study can be applied in the design of strategies and monitoring programs for diabetics, in order to stimulate the incorporation of issues that affect QOL and that can impact on self-monitoring of patients. Still, these results can instigate the development of new research, with different approaches to the subject, because knowing the QOL of these patients means a unique moment of understanding. In addition, refers to the importance of planning and implementation of governmental responsibility actions, to be developed through public policies that involve assisting with the needs and improving the QOL of individuals.

It is recommended for Family Health Strategies the deployment of a multidisciplinary team and the development of community groups that can watch all diabetics and thus provide a gain in quality of care, and especially in the lives of patients. It is suggested that these professionals add the assessment of specific domains of QOL in clinical practice in order to increase patient adherence to treatment of the disease.

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