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RESEARCH ARTICLE

SELF-HELP GROUP, A PROTECTIVE FACTOR FOR PATIENTS WITH TYPE 2 DIABETES

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ABSTRACT

Introduction: Diabetes is a multifactorial disease that has become a pandemic, Secondary to the high incidence of obesity worldwide, being responsible for multiple complications in the health care around the world, Mexico contributes to de highest mortality from diabetes in the American continent and one of the highest rates mortality of the world by this condition. Only 16% of patients with diabetes are in goals. The World Health Organization believes that health education is essential in the treatment of diabetes and the only effective disease control and prevalence of its complications, a patient with diabetes who is not trained on his illness is a patient probably high risk, getting jointly an impact on the health and social cost of the disease. **Objective:** Determine the metabolic and educational impact on type 2 diabetes mellitus in the self-help group for Diabetic. **Material and methods:** Research article, observational, analytical; At the Naval Hospitalof Veracruz, Mexico, During the period of October 2017 to January 2018, Diagnosed with type 2 Diabetes as minimum 12 months prior to start of study, getting a population of 100 patients. Verified in the electronic file glycosylated hemoglobin/lipid profile at most of the last three months, adding body mass index, likewise, were applied questionnaire validated on knowledge of its disease, which consists of 24 reagents grouped in basic knowledge about the disease, control of the glycemic and prevention of complications DKQ24. **Results:** The level of knowledge measured in the Self-help group was good in 95% of the cases and external consultation only 52%, Patients who attended the emergency in the last 6 months were poorly aware of Diabetes 52%, patients with good level of knowledge of their disease does not used the service. Good level of knowledge is related to better control of Hb1Ac%. **Conclusions:** The self-help group increases the level of knowledge about your illness, without influencing the level socio-cultural, contributing a protective factor for acute complications and better metabolic control.

INTRODUCTION

Diabetes is a multifactorial disease that has become a pandemic, Secondary to the high incidence of obesity worldwide, being responsible for multiple complications in the health care around the world (Bustos Saldaña *et al*., 2007), Mexico contributes to de highest mortality from diabetes in the American continent and one of the highest rates mortality of the world by this condition, the diagnosis is not the worrisome, but the control of the same is what the health sector should focus on (Carlos, 2015). Only 16% of patients with diabetes are in goals according to a study conducted in 2015 by the National Institute of Public Health in Mexico. That is why, their treatment and control must be carried out in a multidisciplinary way, fundamental part of this management is the directed and concise guidance to the patient about their illness, that is to say, a patient with diabetes who is not trained on his illness is a patient probably high risk, getting jointly an impact on the health and social cost of the disease (Dalmau Llorca, 2010). The publication of studies as UKPDS (Castell Abat, 2000) and DCCT (Mediavilla Bravo, 2002), change the focus of patient care with diabetes, demonstrating the need and benefits of intensified treatments and multidisciplinary with self-help groups, which had a very important role in diabetes education given by these groups. The World Health Organization (WHO) believes that health education is essential in the treatment of diabetes and the only effective disease control and prevalence of its complications (WHO, 2012), defining health education to the group of actions aimed at individuals and their families developing knowledge, skills, abilities and attitudes, which will enable them to fulfil the responsibility of health care habitually, increase the health positive, reduce watering, prevent damage, make proper use of health care and participate in the management of alterations to your healthcare (William, 2017). Mexican studies in recent years have shown that participatory and group educational intervention offers greater benefits in the controlof blood glucose, as well as in the level of knowledge about their Disease (Gonzalez Pedraza Avilés, 2007), However in the study of Vargas Ibáñez (Vargas Ibáñez, 2010), they concluded that after one year of the application of the course for diabetics, if there is no proper follow-up, glycaemic control is worsening, quality of life decreases as well as the level of knowledge. This is why the objective of this study was to determine the

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metabolic and educational impact on Type 2 diabetes in the self-help group of diabetics from the Naval Hospital of Veracruz, as well as the frequency of consultations to emergencies by metabolic discontrol of the patients of the self-help group in the last six months.

MATERIAL AND METHODS

Research article, observational, analytical; At the Naval Hospital in Veracruz, Mexico, During the period of October 2017 to January 2018. Population taking two groups, patients from the self-help group (SHG) and patients with type 2 diabetes mellitus who came to their monthly appointment in the external consultation (EC) of family medicine. Diagnosed with type 2 diabetes as minimum 12 months prior to start of study getting a population of 100 patients, 20 SHG patients and 80 EC patients, excluding patients with end-stage diseases, patients with neurological impairments to prevent their educational follow-up. Once identified and met the critic'sselection, they were invited to signature the consequential damages informed.

Data collection: is verified in the electronic file glycosylated hemoglobin/lipid profile at most of the last three months, adding body mass index, likewise, were applied questionnaire validated on knowledge of its disease, which consists of 24 reagents grouped in basic knowledge about the disease, control of the glycemic and prevention of complications DKQ24. It was answered in a time of 15 minutes with Likert type response consisting of yes, no, I don't know; Giving a value of one to the right answer, which were only valid with yes and not, being automatically erroneous answers I do not know with a FYROM ALPHA of 0.75. The frequency of emergency consultations is Obtained of each Patient's electronic file reviewing the last six months.

Statistical analysis: Is Analyzed with descriptive and inferential statistics by Chi Square with $p < 0.05$ for its significance for qualitative variables for the average quantitative and standard deviation.

RESULTS

In this study, a total of 100 patients were included, of which 20 belonged to the self-help group (SHG) and 80 were taken from the external consultation (EC)., Both groups with DM2 diagnosis of at least one year of Evolution. Table I shows Sociodemographic data and clinical and laboratory characteristics of interest to the study. The level of knowledge Measured in the SHG wasgood in 95% of the cases and EC only 52%, as shown in Table II. In Table III, It is observed the use of emergencies by metabolic decontrol, attending 12% of

Table 1. Demographic Results

		Self-Help Group (SHG)		External consultation (EC)		
		SHG		EC		
		Count	% of the column N	Count	% of the column N	Value of P
Gender	Male	8	40.0%	36	45.0%	.6
	Female	12	60.0%	44	55.0%	
BMI	Normal	13	65.0%	25	31.3%	0.03
	Overweight	7	35.0%	46	57.5%	
	Obesity I	0	0.0%	7	8.8%	
	Obesity II	0	0.0%	2	2.5%	
	Obesity III	0	0.0%	0	0.0%	
Schooling	No	5	25.0%	2	2.5%	0.009
	Primary	3	15.0%	10	12.5%	
	Secondary	4	20.0%	22	27.5%	
	High school	5	25.0%	35	43.8%	
	University	3	15.0%	11	13.8%	
Marital status	Single	3	15.0%	11	13.8%	
	Married	12	60.0%	58	72.5%	
	Widower	5	25.0%	11	13.8%	
Occupation	Home	7	35.0%	27	33.8%	0.6
	Worker	5	25.0%	24	30.0%	
	Retired	7	35.0%	19	23.8%	
	Active military	1	5.0%	10	12.5%	
Comorbidity	No	2	10.0%	14	17.5%	0.007
	Heart disease	14	70.0%	22	27.5%	
	Neuropathy	2	10.0%	8	10.0%	
	Kidney disease	2	10.0%	25	31.3%	
	Other	0	0.0%	11	13.8%	
Used Therapy	Oral	5	25.0%	41	51.9%	0.7
	Subcutaneous	9	45.0%	26	32.9%	
	Combined	6	30.0%	12	15.2%	

Origins: own source/patients of the Naval Hospital of Veracruz, Mexico.
BMI: Body Mass Index.

Table 2. Self-Help group (SHG) knowledge level and External Consultation

	Type 2 diabetes Knowledge Level						
	Well		Bad boy		O	IC 95%	Value of P
	Total	%	Total	%			
SHG	19	31.1%	1	2.6%	17.1	2.1-134	0.0004
EC	42	68.9%	38	97.4%			

Origins: own source/patients of the Naval Hospital of Veracruz. Mexico.
Note: statistical analysis conducted by CHI test^2.

Table 3. Association between self-help group and emergency assistance

	Consult emergencies last 6 months						
	Yes		No		O	IC 95%	Value of P
	Total	%	Total	%			
SHG	6	12.0%	14	28.0%	0.3	0.1-1.0	0.04
EC	44	88.0%	36	72.0%			

Origin: own Source.
Note: statistical analysis conducted by CHI test[2].

Table 4. Knowledge about their illness, consultation with emergencies and cardiovascular risk Factors

Emergency consultation in the last 6 months							
	Yes		No		O	IC 95%	Value of P
	Total	%	Total	%			
Good level of knowledge	24	48	37	74	0.3	0.1-0, 7	0.007 *
Poor knowledge level	26	52	13	26			
Triglycerides							
	Normal		Mayor a normal		O	IC 95%	Value of P
	Total	%	Total	%			
Good level of knowledge	23	74.2	38	55.1	2.4	0.9-5.9	0.06
Poor knowledge level	8	25.8	31	44.9			
Glycosylated hemoglobin							
	Normal		Mayor a normal		O	IC 95%	Value of P
	Total	%	Total	%			
Good level of knowledge	43	79.6	18	39.1	6.0	2.5-14.7	> 0.0001 *
Poor knowledge level	11	20.4	28	60.9			
Cholesterol							
	Normal		Mayor a normal		O	IC 95%	Value of P
	Total	%	Total	%			
Good level of knowledge	47	63.5	14	53.8	1.4	0.6-3.6	0.3
Poor knowledge level	27	36.5	12	46.2			

Origin: own Source.
Note: statistical analysis conducted by CHI test[2].

the patients of the self-help group, 88% of those of the external Consultation.Patients who attended the emergency in the last 6 months were poorly aware of type 2 diabetes 52%, patients with good level of knowledge of their disease does not used the service, 74% of patients with normal levels of triglycerides have adequate level of knowledge about their disease, cholesterol in Normal parameters in 63% of patients with good level of knowledge.79.6% of patients with glycosylated hemoglobin within normal parameters have knowledge of their proper condition as presented in the Table IV.

DISCUSSION

During the study it was observed that in external consultation group (EC) and self-help group (SHG) women were the majority, 55% and 60% respectively, with average of evolution between seven and nine years, with an average educational level at the top of the EC and being mostly null in SHG, similar characteristics in various studies (Bustos Saldaña, 2007). However, no relationship was found between knowledge about the disease and the sociocultural level of patients.Studies to determine adherence to the treatment of hypoglycaemic (Hernández, 2011 and Ortiz, 2011), they show results where diabetes knowledge in diabetics is low, obtaining better results for patients in urban areas than rural areas. It is also mentioned that the cultural level influences knowledge about the disease**,** however, in our study it was shown that what makes an educational impact on the condition, type 2 diabetes, is specific and directed information in the SHG and not the Patient's school level. The degree of knowledge on type 2 diabetes was assessed and both groups (SHG and EC) catalogedin the self-help group, in a general way,as good in 95% of patients and only a little more than half, 52%, in the external consultation group, showing a clinical relevance taking into account that in the EC group the Socio-cultural level is greater and despite that the SHG knows more about its disease as well as its possible clinical risks and impact on its long-term health as also mentioned in the study of Lazcano Burciaga, Rodríguez Morán (Lazcano Burciaga). Patients belonging to the EC group used emergency services in the last six months in more occasions than those belonging to the SHG, being statistically significant between the two groups and giving a protective factor to the patients who acudenn to this last group, being probably the broadest level of knowledge they have about their disease which helps them to prevent risky situations and to be able to make vital decisions at home by avoiding like this the overburden of consultation in the area of emergencies. Mentioning similar results studies of Preventive medicine (Zafra, 2001). In studies such as M.R. Dalmau Llorca, G. García Bernaa (Dalmau Llorca, 2010) mentions that health education is a fundamental part of the treatment of diabetes, control of the disease and the complications, being in the latter where there was more impact in our hospital.

On the metabolic impact, it was observed in this study, that patients who have a higher level of knowledge have 2.5 to 14.7 times more possibilities to maintain in normal ranges this parameter, being similar results with the work of Lyssenko V, Jonsson Et. Al (Lyssenko, 2008). Emphasizing that proper control in glycosylated hemoglobin decreases adverse impacts secondary to long-term complications as mentioned by the American Diabetes Association (William, 2017), it should be mentioned that as regards the results of total cholesterol and triglycerides there was no significant difference between the two groups, being Different with the study of OteroZanetti ML, Ogrizio Md (Otero, 2008).

Conclusions

We see the benefits of the Self-Help Group as it provides a higher level of knowledge about type 2 diabetes, which definitely has a positive impact on the control of glycosylated hemoglobin and prevention of acute complications, having less risk of using the emergency service SHG patients, so individuals with greater knowledge about their disease would have a lower risk of morbidity and mortality regardless of the sociocultural level of the Patient.

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