

Assessment of Diabetic patients knowledge regarding its cause, signs, symptoms and treatment therapy in Kirkuk province

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Abstract

Diabetes Mellitus is a global disease with extreme effect on the quality of life of affected patients. Across- sectional study was conducted in Kirkuk General hospital and Azadi hospital from the period of beginning of January 2012 to the end of March /2012. The aim of the study was to determine the diabetic patients knowledge regarding its definition, causes, signs and symptoms, duration of illness, and treatment therapy and to found any relation between educational level and their knowledge concerning dietary habits of the disease. The study found hat most of the patients aged between 60-69 years (43.5%) with 6-15 years duration of illness and they on Insulin therapy (54.3%). Diabetic knowledge regarding its definition, causes and signs and symptoms was above cut- off point and there is a strong relation between educational level and their knowledge about dietary habits of the disease.

Conclusion, there are quite deficient in Diabetic knowledge and there was a socio-demographic factors affecting their knowledge. The current study recommended that an effective educational program regarding the dietary habits of the disease.

Key words Educational level, knowledge parameters, dietary habits

Introduction

The medical name for diabetes is “diabetes mellitus”. Diabetes means “flowing through” and mellitus means “sweet as honey”. The condition was named after the high volume of urine laden with sugar that is found in people with untreated diabetes. In the past, diabetes was diagnosed by tasting the urine sugar (1)

The number of people with diabetes varies enormously from country to country. In Europe and the US, it is estimated that 50

million people have the condition. The number of people with Type 2 diabetes worldwide is likely to rise significantly in the future. In 2000, the World Health Organization estimated that over 177 million people had diabetes. This figure is likely to rise to at least 300 million by 2025 (2)

Diabetes is a major health problem in most developed nations, and sadly the UAE is no exception. Diabetes Knowledge Action aims to combat the spread of diabetes through a combination of education and direct action (3) .

Diabetes Knowledge will be used frequently. It is defined as the individual's general awareness of the effects of diabetes, how type 2 diabetes and pre diabetes develop, and strategies to prevent and treat the disease (4). Previous research regarding knowledge of other preventable diseases has shown that an increased knowledge of the disease was correlated with reduced risk of it developing in the person. Jepson, Kessler, Portnoy, and Gibbs (1991) found that an increased knowledge of the health risks related to smoking was correlated with a reduced likelihood to smoke (5).

The relationship between general knowledge about diabetes and the development of diabetes has received little attention in past research, even though diabetes knowledge may prove to be a salient factor (6).

The aim of the study is to determine the Diabetic knowledge among patients regarding its definition , symptoms , treatment with the determination of educational level with the dietary habits.

Objectives:-

1- Identify some socio- demographic characteristics of the study sample.

2- Clarify the knowledge of Diabetic patient's knowledge in regard to its definition , symptoms and treatment .

3- To find any relation between educational level and diabetic knowledge about dietary habits.

Subjects and Methods

A cross- sectional study was done in Kirkuk province including (400) diagnosed Diabetic patients who were interviewed in the Kirkuk – General hospital and Azadi- hospital during the period between 1st of January 2012 to 30th of March 2012.

Ethical issue was taken before establishing the study from Kirkuk Health residency and written consent from each participant involved in the study.

The interview was done by using a designed questionnaire form which included:-

1- Information about the demographic characteristic of the study sample (age, sex, duration of DM , occupation and type of treatment).

2- Information about their knowledge regarding the disease definition, causes, symptoms and treatment therapy .

3-Information regarding their educational level and its relation with the dietary habits of the disease.

The questionnaire was pilot tested on 10 patients from the same hospitals to assess the suitability of content, clarity and flow of questions .

The items of mothers knowledge were rated according to type of likert scale as (yes- uncertain –no) and scored as :

3 for yes answer

2 of uncertain answer

1 for no answer

The deviation of the score using the following formula:-

Cut- off point $(3+2+1)/3 = 2.0$, therefore the results calculated as follow :-

No. of women said yes $\times 3$ + No. of women said uncertain $\times 2$ + No. of women said no $\times 1$

Sample size (400)

Descriptive statistics were used (number and percent).

Chi- square was used and P Value at ≤ 0.005 was considering significant.

Results

The socio- demographic characteristics of the Diabetic patients knowledge was the followings : Most of the patient were from the age group 60-69 years which compromised 175 (43.5%) .

Majority of patients were male ,217 (54.3%) ,housewives in regard to occupation ,136 (34%) . High percent of them have the disease between 6-15 years in regard to duration of it which compromised 197 (49.3%) .

Concerning the treatment therapy , high percent of them used insulin therapy which constitute 289 (72.2%).

Table (2) show that the diabetic patient knowledge parameters were the followings :- Their knowledge about its definition was above the cut- off point (2.06).

Regarding their knowledge to the diabetic causes , their score indicated that it was above cut- off point (2.14).

Concerning the knowledge of them about DM signs and symptoms , their score show that it was also above cut- off point

(2.07), while their knowledge in regard to treatment therapy (Oral drugs and Insulin) it was below cut- off point (1.76, 1.81) respectively

Table (3) show that there is a relation between educational level and diabetic knowledge about dietary habits and there is a high percent 22(100%) among patient with high educational level university and above regarding diets with less sugar and 86.3% with diets less in fat and 90.9% for diets less in Carbohydrates.

There is a clear relation between educational level and patients knowledge regarding diets and the knowledge was increased with the advanced educational level .

Discussion

The greatest weapon in the fight against DM is knowledge . Information can help people assess their risk of Diabetes , motivate them to seek proper treatment and care, and inspire them to take charge of their disease for their lifetime. (8)

The current study reveal that most of the Diabetic patients were housewives and in the age groups between (60-69) years , Rafique et al / during 2006 who conducted a similar study in Aga Khan University hospital , Karachi ,Pakistan and they show that most of Diabetic patient were female and there is no significant differences between the sexes (9) .

Regarding the duration of illness , the study indicated the most of patient complain of this diseases for 6-15 years while in South Africa the study revealed that the duration of illness was between 8-9 year

Concerning the treatment therapy , the study show that most Diabetic patient treated with insulin , this results is disagree with Moodley et al / during 2007 who show that main treatment for Diabetic patient were oral hypoglycemic drugs (10).

Regarding the knowledge parameters about the disease , most of Diabetic patients have a good knowledge concerning its definition , causes and its main signs and symptoms . This results is agree with the study conducted in New York city show that 56% of the Diabetic patients know the disease definition and its main symptoms while 42% did not know the causes of it (11) .

Diabetic knowledge in regard to its treatment (oral and Insulin therapy) was under cutt0- off point which disagree with the study done in Malaysia during 2012 and it reveled that two third of Malaysian Diabetic patients have a good knowledge in term of its management and that knowledge need to be improved epically

in those with a shorter duration of illness and a low level of education (12)

The relation between disease knowledge and educational level was presented by table (3) which indicates a strong relation between higher educational level among disease dietary habits

This results agree with study conducted in Christian Medical College in Ludhiana, India which presented that higher educational level play an important parting disease prevention and preparing any future nutritional programs (13).

Similar study was conducted in Oman during 2007 which found that that the level of diabetic knowledge was optimal and the percentages of correct responses to questions on diabetes definition, classical symptoms, and complications were 46.5%, 57.0%, and 55.1%, respectively. Only 29.5%, 20.8% and 16.9% identified obesity, physical inactivity and a positive family history, respectively, as risk factors for diabetes. A higher level of education, a higher household income, and the presence of a family history of diabetes were found to be positively associated with more knowledge (14) .

Conclusions:-

The current study concluded that most of Diabetic patients were male and in the age groups (60-69 years of age . Female were mainly housewives and the duration of illness was between 6-15 years and they treated with insulin.

Their knowledge about the disease definition , causes and sign and symptoms were above cut- off point and higher

educational level have better knowledge regarding dietary habits of diseases .

Recommendation:

The current study recommended that there is a need for increased efforts towards developing and making widely available Diabetes education programmes that focuses on empowering the person with Diabetic, not only providing them with information and skills , but also the ability to make decisions and take ownership of controlling their Diabetes .

Nutritional educational program for DM should be carried out and further research studies should be encouraged to provide additional data about the disease.

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Table (1): Socio- demographic characteristics of the study sample

Socio- demographic parameter		Number(N=400)	Percent
Age in years	25-39 years	28	7
	40-49 years	33	8.25
	50-59 years	71	17.8
	60-69 years	175	43.5
	> 70 years	93	23.5
Sex	Male	217	54.3
	Female	153	45.7
Occupation	House wife	136	34
	Employed	81	20.3
	Self- employed	79	19.7
	Retired	104	26%
Duration of Diabetes (years)	< 1	65	41.2
	1-5	91	22.8
	6-15	197	49.8
	>15	47	11.7
Type of treatment	Diet	18	4.5
	Oral hypoglycemic drugs	93	23.3
	Insulin	289	72.2

Table (2): Frequency distribution of study sample patient according to their Knowledge about Diabetes Mellitus

Knowledge parameter	No. of women (n=70)			Mean of score	Grand Mean (GM) / assessment value)
	NO	Uncertain	Yes		
1-Definition of Diabetes Mellitus :- Metabolic disease in which person have high blood sugar either because the body dose not produce enough insulin or because cells dose not respond to insulin that is produced .	93	249	58	2.06	GM= 2.06 Above cut-off point
2- Causes of Diabetes Mellitus a- eating too much sugar and sweet foods b- the body cannot use food properly c- the kidney cannot control sugar in the urine. d- it is caused by liver failure .	279 179 124 201	83 12 90 69	38 209 176 130	2.60 1.92 1.89 2.17	GM=2.14 Above cut-off point
3- Signs and Symptoms of (DM) a- loss weight b- frequent urination , thirst c- dry mouth d- chest pain, headache	211 239 73 189	27 131 50 92	162 30 277 119	2.12 2.52 1.49 2.17	GM=2.07 Above cut-off point
4- Treatment of (DM) – Oral hypoglycemic drugs a- are insulin taken in pill form b- can lower blood sugar c- are given to anyone with DM d- can be taken any time of the day	77 275 56 79	12 105 51 84	311 20 293 237	1.41 2.63 1.40 1.60	GM=1.76 Under cut-off point
5-Treatment of DM – Insulin therapy a- keeps blood sugars level constant all day b- can be taken any time of the day c- helps the body use food properly by letting sugar enter the cells d- raises the blood sugar level by keeping sugar in the blood vessels	95 89 72 211	60 101 185 25	245 210 143 164	1.62 1.69 1.82 2.11	GM= 1.81 Under cut-off points

Table (3): Relation between educational level and Diabetic patient knowledge about dietary habits

Educational level	Diet less sugar				Diet less fat				Diet less CHO				Total
	yes	%	No	%	yes	%	no	%	yes	%	No	%	
Illiterate	141	84.9%	25	15.1%	95	57.2%	71	42.7%	123	74.1%	43	25.9%	166
Read and write	69	91.1%	28	28.9%	71	73.1%	26	28.9%	55	56.7%	42	43.3%	97
Primary school	42	59.1%	29	40.9%	49	69.1%	22	30.9%	57	80.2%	14	19.8%	71
Secondary school	31	70.4%	13	29.6%	37	84.1%	7	15.9%	35	79.5%	9	20.5%	44
University and high	22	100%	/	/	19	86.3%	3	13.7%	20	90.9%	2	9.1	22
K.S	22,238				18,723				19,085				400
	P/ Significant				P/ Significant				P/ Significant				

الخلاصة :-

يعتبر مرض السكري من الأمراض العالمية ذو التأثير الواضح على جودة الحياة للأشخاص المصابين .

أجريت دراسة مقطعية في مستشفى كركوك العام و م. أراي العام للفترة من بداية شهر كانون الثاني 2012 ولغاية نهاية شهر آذار 2012 . تهدف الدراسة إلى تحديد معارف مرضى السكري فيما يتعلق بتعريف المرض , أسبابه , أعراضه وعلاماته , مدة المرض إضافة إلى طريقة العلاج ولإيجاد علاقة بين المستوى الثقافي والتعليمي للمرضى وعارفهم حول العادات الغذائية للمرض .

وجدت الدراسة بان معظم العينة تتراوح أعمارهم بين 60- 69 سنة حيث شكلوا 43.5% وكانت مدة المرض لديهم من 6-15 سنة وغالبيتهم من الذين يستخدمون الأنسولين كعلاج للمرض حيث شكلوا 72.2% .

كانت معارف مرضى السكري حول تعريفه , أسبابه وأعراضه وعلاماته فوق مستوى القطع إضافة إلى وجود علاقة قوية بين المستوى الثقافي والتعليمي ومعارفهم عن العادات الغذائية للمرض .

استنتجت الدراسة إلى وجود نقص واضح في معارف مرضى السكري فيما يتعلق بعلاج المرض إضافة إلى وجود عوامل ديموغرافية تؤثر على مستوى معرفة مرضى السكري .

أوصت الدراسة بإيجاد برنامج تثقيفي حول العادات الغذائية السليمة التي تخص المرض .

مفاتيح الكلمات :- المستوى الثقافي , مقاييس المعرفة . العادات الغذائية