Attitudes And Knowledge Of Diabetic Patients In Kirkuk Governorate

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الخلاصة:
الخلفية: داء السكر مرض خطير جدا يصيب جميع الاعمار والاعراق في جميع انحاء العالم، وهو الحاله التي ينتج فيها الجسم كمية قلية من هرمون الانسولين او لا ينتجها نهائيا و اذا ترك بدون علاج يرتفع نسبة الكلوكوز في الدم ويسبب الاغماء او حتى الموت.
الاهداف: تهدف الدراسة الحالية الى تقييم اتجاهات ومعارف المرضى المصابين بداء السكري في محافظة كركوك، بالإضافة إلى إيجاد العلاقة بين معارف المرضى وبعض الخصائص الديموغرافية مثل العمر، الجنس.
المنهجية: اجريت دراسة وصفية في مستشفى ازادي التعليمي ومستشفى كركوك العام في محافظة كركوك للفترة من الخامس من تشرين الاول 2011 ولغاية السابع والعشرين من اذار 2012 ، ولتحقيق اهداف الدراسة اختيرت عينة غرضية غير احتمالية مكونة من (100) مريضا مشخصين نهائيا بداء السكري ممن راجعوا مستشفى ازادي التعليمي ومستشفى كركوك العام في محافظة كركوك. ولغرض جمع المعلومات صممت استمارة الاستبانة مكونة من (30) فقرة شملت الخصائص الديموغرافية؛ اتجاهات ومعارف المرضى. وبطريقة المقابلة الشخصية مع عينة البحث جمعت المعلومات وتم تحليل البيانات باستخدام اسلوب التحليل الوصفي (التوزيع التكراري ، النسبة المئوية) وكذلك اسلوب التحليل الاستنتاجي (مربع كاي).
النتائج : من خلال تحليل البيانات تبين ان (36%) من المرضى كانوا ضمن الفئة العمرية (50-59) سنة، و(51%) منهم كانوا من النساء، و(49%) منهم لا يقرؤن ولا يكتبون ، و(42%) منهم ربات بيوت، و(66%) منهم متزوجون ، و كان الدخل الشهري لهم متوسط (47%) ، و(75%) منهم من سكنة مدينة كركوك.
الاستنتاجات : استنتجت الدراسة ان معظم المرضى كانت لديهم اتجاهات سلبية حول مرض السكري، وان غالبية المرضى كانت لديهم معلومات غير كافية حول مرضهم، وان غالبية المرضى كانت لديهم معلومات غير كافية حول علاج مرض السكري. وكما استنتجت الدراسة ان هناك علاقة قوية بين عمر وجنس المرضى مع معارفهم تجاه مرض السكري

Abstract

Background : Diabetes mellitus (DM) is a very serious disease affecting people of varying age and race all over the world, it is a condition in which the body produces little or none of the hormone insulin. If left untreated, the blood glucose levels can rise to such a point as to cause coma or possibly even death.
Objectives: To assess patient's attitude and Knowledge with diabetes mellitus in Kirkuk governorate as well as to find out the relationship between patients knowledge and some socio-demographic characteristic such as age and gender
Methodology: A descriptive study of a quantitative design were carried out at Azadi teaching hospital and Kirkuk general hospital in Kirkuk governorate for diabetic Mellitus patients from 5th of October, 2011, up to the 27th of March, 2012. A non-probability (purposive) sample of (100) definitely diagnosed with diabetic mellitus, selected from patients who were attended to Azadi Teaching Hospital and Kirkuk General Hospital in Kirkuk governorate. Developed questionnaire was constructed for the purpose of the study which consisted of three parts: the first part include the demographic data of the respondent, the second part consist six item to measure the attitude of respondent and the third part was contained (23) questions which assess the knowledge of the diabetic patients. The data were collected through the use of interview. They were analyzed through the application of descriptive statistical analysis (frequency and percentage) and inferential statistical data analysis (chi-square).
Results: The findings of the study indicated that (36%) of the sample Age group were (50-59) year's old, (51%) were female, (49%) were illiterate, (42%) were house wives, (66%) were married, (47%) were barely sufficient monthly income and (75%) were from urban.
Conclusion: The study concluded that most of the samples had negative attitude about diabetic mellitus, most of the sample have inadequate knowledge about the disease, most of them have inadequate knowledge regarding the treatment of diabetic mellitus. Also the study concluded that there is a highly significant relationship between diabetic patient's age, gender and their knowledge.
Keywords: Attitudes, Knowledge, Diabetic Patients

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INTRODUCTION

Diabetes mellitus (DM) is a very serious disease affecting people of varying age and race all over the world, it is a condition in which the body produces little or none of the hormone insulin; because of this lack of insulin, blood sugar levels, which normally range between 80 and 120 mg/dL, are increased[(1)] Diabetes mellitus is a serious health problem throughout the world, it is the third leading cause of death because of the high rate of cardiovascular diseases, the economic cost of diabetes continues to increase because of increasing health care cost. Half of all people who have diabetes and older than 65 years of age are hospitalized each year.[(2)] It is estimated that 246 million people suffer from diabetes worldwide. This number is expected to grow to 380 million by 2025, making diabetes one of the greatest medical challenges of the 21st Century.[(3)] WHO calculations indicate that worldwide almost 3 million deaths per year are attributable to diabetes.[(4)] Diabetes is a silent disease that has become more prevalent with increased age. Despite the advances in understanding the disease and its management, the mortality and morbidity of the disease is increasing. Many causes have been postulated for this rise, such as poverty, non-compliance, and poor follow-ups. Poorly controlled diabetes mellitus leads to damage of end organs such as kidneys, heart, brain, and eyes.[(5)] The primary goal of treatment for people with diabetes include controlling blood glucose levels and preventing acute and long term complications. Nurses who care for the patients with diabetes must help them develop self care management skills**.** [(6)] Diabetes is directly related to how the body uses food. Nutrition is thus an essential component of management for all persons with diabetes. Studies have shown that clients report improved health, better control of body weight, improved control of blood glucose, blood pressure and lipid levels, and improved use of insulin when they adhere to dietary recommendations.[(7)] All people with diabetes of all types and their families must learn how to do accurate monitoring and how to use the results. Blood glucose monitoring allows each individual patient to get to know her individual responses to the various factors that influence blood glucose levels. Monitoring helps patients and their families understand how different types and amounts of foods, different forms and amounts of exercise, and various levels of stress affect their blood glucose. This knowledge allows people with diabetes to modify their regimen as needed to prevent significant hypoglycemia as well as to treat it [(8)] .

OBJECTIVES OF THE STUDY:

1. To assess patient's attitude and Knowledge with diabetes mellitus in Kirkuk governorate
2. To find out the relationship between patients knowledge and some socio-demographic characteristic such as age and gender**.**

METHODOLOGY

The present study was carried out through the application of quantitative design (descriptive study) for diabetic patients from 5th of October, 2011, up to the 27th of March, 2012. To assess diabetic patients attitude and knowledge. The study was conducted at Azadi teaching hospital and Kirkuk general hospital, which are receiving large number of diabetic patients. A non-probability (purposive) sample of (100) definitely diagnosed diabetic patients, selected from adult patients who were attended to these hospitals. Through extensive review of relevant literature, a questionnaire was constructed for the

purpose of the study with interview technique. Overall items included in the questionnaire were (30) items. A pilot study was carried out for the period of December 10th to 25th, 2011 to determine the questionnaire reliability through the use of (Test – Retest). A panel of (6) experts was involved in the determination of the questionnaire content validity. Patients knowledge level were described as adequate if the scored more than 50% yes answers and inadequate if the scored less than 50% yes answers. The questionnaire consists of three parts, demographic data which is composed of (7) items such as (age, gender, level of education, occupation, marital status, monthly income, residential area), attitude which comprised of (6) items, patients knowledge which comprised of (17) items. That classified as (general information about diabetic mellitus and treatment of diabetic mellitus).The data were collected through the utilization of constructed questionnaire, interview technique with the patients with diabetic mellitus in medical wards in kirkuk and azady teaching hospitals.

The data collection process was performed from the period of 17th of October, 2011 up to the 24th November, 2012. Consent informed was granted from patients for participation in the present study was obtained and the interview was carried out individually. The data were analyzed through the application of descriptive statistical analysis which include(frequency and percentage) and inferential statistical analysis which include (chi- square).

RESULTS

Table (1). Distribution of the samples regarding demographic data

No	Age(years)	Frequency	Percentage
1	30-39	13	13.0
2	40-49	20	20.0
3	50-59	36	36.0
4	≥ 60	31	31.0
Total		100	100
	Gender	**Frequency**	**Percentage**
1	Male	49	49.0
2	Female	51	51.0
Total		100	100
.	**Level of Education**	**Frequency**	**Percentage**
1	(Illiterate) Not read and Write	49	49.0
2	Read and Write	15	15.0
3	Primary School Graduate	12	12.0
4	Intermediate School Graduate	7	7.0
5	Secondary School Graduate	5	5.0
6	High Institute Graduate	7	7.0
7	College and post Graduate	5	5.0
Total		100	100
No.	**Occupation**	**Frequency**	**Percentage**
1	Governmental Employed	9	9.0
2	Self employed	21	21.0
3	Retired	13	13.0
4	House wife	42	42.0
5	Student	0,0	0,0
6	Out of work(jobless)	15	15.0
Total		100	100
No.	**Marital Status**	**Frequency**	**Percentage**
1	Single	2	2.0
2	Married	66	66.0
3	Divorced	3	3.0
4	Widow/er	29	29.0
Total		100	100
No.	**Monthly income**	**Frequency**	**Percentage**
1	Sufficient	35	35.0
2	Barely sufficient	47	47.0
3	Insufficient	18	18.0
Total		100	100.
No.	**Residential Area**	**Frequency**	**Percentage**
1	Urban	75	75.0
2	Rural	25	25.0
Total		100	100

Table (1) shows that the highest percentage (36%) of study sample were at age group (50-59 years, while the lowest percentage (13%) their ages ranged from (30-39) years, (51%) of the study sample were female, (49%) of study sample were illiterate, (42%) of the study sample were house wife, (66%) of the study sample were married, (47%) of the study sample have barely sufficient income and (75%) of the study sample were from urban.

Table (2). Distribution of the study samples regarding of diabetic mellitus patients attitude.

No.	Items	Yes		No	
		F	%	F	%
1	Insulin injection is boring procedure	86	86.0	14	14.0
2	Dietary pattern change with diabetic	92	92.0	8	8.0
3	Diabetic treatment is coasty	63	63.0	37	37.0
4	Physical activity affected with diabetic	60	60.0	40	40.0
5	Psychological status is unstable with diabetic	59	59.0	41	41.0
6	Diabetic complication can not be controlled	60	60.0	40	40.0

F= Frequency ; % = Percentage

Table (2) shows diabetic mellitus patients attitudes, it revealed that (86%) of patient see that insulin injection boring procedure, (92%) of the sample agree that dietary pattern change with diabetic, (63%) of the sample find that diabetic treatment is coasty, (60%) of the sample find that physical activity affected with diabetic, (59%) of the samples agree that psychological status is unstable with diabetic and (60%) of the samples agree that diabetic complication can not be controlled

Table (3). Distribution of the patients regarding general information about diabetic mellitus.

No.	Items	Yes		No	
		F	%	F	%
1	Diabetes Mellitus is a chronic disorder	87	87	13	13
2	DM result from disturbance in the production, action and rate of insulin?	24	24	76	76
3	There are different types of DM	34	34	66	66
4	DM may be genetics	48	58	52	42
5	Stress may lead to DM	37	37	63	63
6	Medication may lead to DM	30	30	70	70
7	Pregnancy may cause DM	35	35	65	65

F= Frequency ; % = Percentage

Table (3) shows the knowledge of diabetic patient general information about diabetic mellitus, it revealed that (87%) of patient know that diabetic mellitus is chronic disease, (76%) of patient does not know that diabetic mellitus result from disturbance in production, action and rate of insulin, (66%) of patient does not know that there is different type of diabetic mellitus, (58%) of patient know that diabetic mellitus may be genetic, (63%) of patient does not know that stress may lead to diabetic mellitus, and (70) of the patient does not know that medication may lead to diabetic mellitus.

Table (4). Distribution of the study sample regarding knowledge of the treatment of diabetic mellitus with frequency and percentage.

No.	Items	Yes		No	
		F	%	F	%
1	Nutritional therapy is the corner stone for care of patients with DM	95	95	5	5
2	DM treatment should include avoiding simple sugar and saturated fat	82	82	18	18
3	There are two type of drug. Insulin and oral antidiabetic agent	51	51	49	49
4	Regular habit of taking insulin helps to keep glucose levels within the normal range?	38	38	62	62
5	There are different site for injection of insulin	44	44	56	56
6	Insulin has allergic reaction	40	40	60	60
7	Regular, consistent exercise is considered an essential part of diabetic management	45	45	55	55
8	Exercise contribute to insulin consumption	33	33	67	67
9	Exercise can be scheduled bout 1 hour after meal	14	14	86	86
10	Light activity include walking and teaching	26	26	74	74

F= Frequency ; % = Percentage

Table (4) shows the knowledge of diabetic patient regarding treatment of diabetic mellitus, it revealed that (95%) of patient knew that nutritional therapy is the corner stone for care of patients with DM, (82%) of patient knew that treatment of DM treatment include avoiding simple sugar and saturated fat, (51%) of patient agree that there are two type of treatment of DM; Insulin and oral antidiabetic agent, (62%) of patient emphasied that regular habit of taking insulin helps to keep glucose levels within the normal range, (54%) of patient knew that there are different site for injection of insulin, (60%) of patient does not knew that there are three types of allergic reaction to insulin, (55%) of patient does not knew that regular, consistent exercise is considered an essential part of diabetic management, (67%) of patient agree that exercise contribute to weight loss, reduce triglycerides and cholesterol, (86%) of patient does have no idea that exercise can be scheduled bout 1 hour after meal, (74%) of patient does not knew that light activity include walking, fishing, teaching help in managing DM.

Table (5). Relationship between diabetic patient's age and their knowledge.

Scores / Age		Yes	No	Total
1	30-39 years	189	97	286
2	40-49 years	276	154	430
3	50-59 years	503	398	901
4	≥ 60 years	308	375	683
Total		1176	1024	2300
X^2obs= 54.079 df= 3 X^2 Crit= 7.815 P < 0.05				

df= Degree of freedom; P-value= Level of Probability; χ2 crit. = Chi-square critical; χ2 obs. = Chi-square Observed

Table (5) shows that a highly significant relationship between diabetic patient's age and their knowledge which indicated that the sample age group (50-59) years have high percentage (34.2 %) at P < 0.05

Table (6). Relationship between diabetic patients gender and their knowledge.

Scores / Gender		Yes	No	Total
1	Male	656	444	1100
2	Female	598	602	1200
Total		1154	1046	2300
X^2obs= 22. 243 df= 1 X^2 Crit= 3.841 P < 0.05				

df= Degree of freedom; P-value= Level of Probability; χ2 crit. = Chi-square critical; χ2 obs. = Chi-square Observed

Table (6) shows that a highly significant relationship between diabetic patient's gender and their knowledge. at P < 0.05.

DISCUSSION

Regarding the demographic data in (table 1), the result findings agree with Fried, et al.[9] who evaluated in a study the factors associated with the effect of age on diabetic patients in more than 4800 patients. The results of their study show that increased age associated with a significant increase in the prevalence of diabetic mellitus. Regarding gender of the samples the study agree with Anderson**,** et al[10] (2010) who reported that diabetes mellitus is more common in females than males. Regarding level of education, The study agree with Larsson, et al [11] who stated that the low educational level could explain the associated poor metabolic control and the presence of complications. Concerning marital status, a study was conducted to determine the level of glycaemic control among diabetic patients in Kelantan. (140) diabetic patients were involved in this study, they discovered that majority of them was married (78.1%).[12]Regarding diabetic patients attitude, (Table 2) shows that most of the samples have negative attitude toward diabetic mellitus particularly the change in dietary pattern which represent (92%) of them, this result agree with Rubin and Peyrot (1999) [13] whom stated that diabetes has significant effects on quality of life; however, the interrelationships are complex among the physiologic and psychosocial effects of diabetes, the effects of treatment regimens, and the social and cultural contexts in which we live. Concerning diabetic patients knowledge, the finding results reveal that diabetic patients have inadequate knowledge regarding majorities aspects of general information about diabetic except in the aspect (diabetic mellitus is a chronic disorder) were they have adequate knowledge, Kutner (2006) [14] mentioned that illiteracy has an association with DM, which is consistent with other studies also. Limited literacy is associated with a decreased knowledge of one's medical condition. These individuals have no access to knowledge for self care for the prevention or treatment of DM and other diseases.According to the knowledge items with the age of the sample**,** high significant association was found between the age and gender of the diabetic patient and their knowledge at P >0.05. Recent Studies have shown that successful diabetes control requires a deep knowledge of fundamental principles of management as well as

trouble-shooting. Education about diabetes begins at the time of diagnosis and is an ongoing, lifelong process. Patients and families need to understand what causes diabetes and also need to understand how nutrients, physical activity, and insulin interact and how these factors affect blood glucose levels. There are many technical skills that must be mastered. At diagnosis, initial educational goals may be addressed on an inpatient or an outpatient basis, depending on the particular resources of each clinician and institution.(15)

CONCLUSIONS

The result of interpretation and the discussion of the study revealed the following conclusions:

1- most of them old represent (36 %), male to female ratio is (49 %) for male and (51 %) for female, most of the diabetic patients were illiterate represent (49 %), most of the diabetic patients were house wife represent (42 %), most of them were married represent (66 %), most of the diabetic patients had barely sufficient monthly income represent (47 %), majority of the diabetic patients were from urban represent (75 %).Regarding diabetic patients attitude shows that (85%) diabetic patients demonstrate positive attitude in items diabetes mellitus is a chronic disorder other wise they demonstrate negative attitude in all items. The result shows that diabetic patients has inadequate knowledge regarding general information about diabetic. Regarding treatment of diabetic mellitus, the result shows that diabetic patient has adequate knowledge in items (nutritional therapy is the corner stone for care of patients with DM, avoid simple sugar and saturated fat) other wise they demonstrate in adequate knowledge in other remain items. The results show that there is highly significant relation between age of diabetic patients and their knowledge, and also the result shows that there is highly significant relationship between diabetic patient's gender and their knowledge.

RECOMMENDATION

1- Educational programs should be designee by nurses to increase people knowledge about etiology, signs and symptom and treatment of diabetic mellitus.
2- Specify a modern center for dealing with diabetic patient
3-By nurses providing scientific booklet, publication and journal about diabetes.
4-Advertisements and some health educational programs regarding diabetic mellitus should be encouraged through mass media.
5- Further study has to be conducted in all kirkuk region
6- Secondary school curriculum should include topics concerning diabetic mellitus.

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