

KNOWLEDGE OF DIABETES MANAGEMENT AND CONTROL AMONG DIABETIC PATIENTS ATTENDING FEDERAL POLYTECHNIC CLINIC, KAURA NAMODA,NORTH WEST NIGERIA

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INTRODUCTION

Diabetes is one of the chronic diseases that affect both the young and old in our society. According to World Health Organization (2006), at least 171 million people worldwide suffer from diabetes and it is more prevalent in developed countries. According to American Diabetes Association (2006), there were about 20.8 million people with diabetes in United States alone, while in developing countries, increase in prevalence is expected to occur especially in Africa, where most patients will likely be found by 2030. This increase in incidence of diabetes in developing countries follows the trend of urbanization and lifestyle changes perhaps most importantly a “Western – Style” diet (World Health Organization, 2006). In Nigeria though no estimate of the individuals suffering from diabetes has been made, in a recent screening exercise carried out in Warri and Sapele (south east, Nigeria) where 787 people attended, 65% were diabetic and hyper-tensive (Urhobo National Association of North America, 2004). Also at University of Nigeria Teaching Hospital Enugu the number of patients that attend Wednesday diabetic clinic is alarming.

Diabetes is characterized by a disorder in metabolism of carbohydrate and subsequent derangement of fat and protein metabolism. Disturbance in production and action of insulin, a hormone secreted by the islets of langerhans in the pancreas is implicated in the disease (Shafer,2000). In addition to insulin, aging, over weight and several other hormones affect blood glucose level there-by preventing glucose from entering the cells (Clavell, 2005).This leads to hyperglycemia, which may result in acute and chronic complications such as diabetic keto-acidosis, coronary artery disease, cerebrovascular disease, kidney and eye diseases, disorders of the nerves and others (Iwueze, 2007).The management of diabetes poses a challenge to medical and nursing staff as well as to the patients themselves. Since diabetes is a chronic disease, most diabetic patients need to continue their treatment for the rest of their lives. The emphasis is usually therefore, on the control of the condition through a tight schedule of blood glucose and urine sugar monitoring, medication and adjustment to dietary modification (American Diabetes Association, 2003; Iwueze, 2007). Such a chronic condition requires competent self-care, which can be developed from a thorough under-standing of the disease process and the management

challenges by the patient and family members. This pre-supposes a need for some form of diabetes education and counseling for the patient and family members. According to Colbert (2007) educating and supporting diabetic patients in managing their daily lives are important goals of diabetic patients care today. Unfortunately, about a third of the people suffering from diabetes may not be aware of it early considering the insidious onset and development (Iwueze, 2007). Regrettably too, many who are diagnosed with the condition demonstrate fears about the future and a general distaste because of the predominant misconceptions about the disease. This is heightened by the superstitious explanation of causation of diseases dominant in Africa where most diseases are caused by “poison” and/or “evil spirits”. Some of these problems highlighted can be taken care of if patients and indeed the general public are exposed to diabetes education (Iwueze, 2007).

GENERAL OBJECTIVE

To determine the level of knowledge of diabetes and control measures by patients attending federal polytechnic clinic, kaura namoda, Northwest Nigeria.

SPECIFIC OBJECTIVES

1. To determine the level of knowledge of diabetes mellitus in patients.
2. To determine the knowledge of control measures/management in diabetes by patients.
3. To make recommendations for improved care by patients, the polytechnic clinic, and the polytechnic management.

Knowledge of diabetes

This involves the understanding of what diabetes is by the diabetic patients as shown by their answers to specific knowledge questions on diabetes. Knowledge of diabetes management: This involves understanding of the care given to the diabetic patients such as nutrition, exercise, self-monitoring and drug therapy, etc.

Knowledge of self-care

This involves the diabetic patients understanding of how to take care of themselves, in terms of the standard management; healthy diet, self monitoring, administration of insulin or oral drugs, care of the feet, nails and personal hygiene.

METHODOLOGY

Forty eight diabetic patients visiting the outpatient department of the federal polytechnic kaura namoda were be selected using simple random sampling technique. The instrument of data collection was close ended questionnaire consisting of five sections which was pre validated by a supervisor before use. The first section consists demographic features, the consists questions on causes of diabetes, the third consists questions concerning self care to prevent/ control diabetes, the forth consists questions on self care measure in urine testing for glucose, the fifth section consists of questions on kind of food to eat by a diabetic patient.

A pilot test was conducted using 10 patients before the full study to identify any unforeseen problems to rectify. Some selected staff of the polytechnic clinic was trained as research assistants for data collection.

RESULT

Table 1

What is diabetes?

Options	Frequency	Percentage
Bone disease	0	0
Heart disease	1	2.1
Liver disease	5	11.5
Sugar disease	39	81.2
Do not know	3	6.3

Table 2

Causes of diabetes?

Options	Frequency	Percentage
Poison	37	77
Heredity	5	10.4
Eating a lot of starchy food	25	52
Eating a lot of protein food	4	8.3
Insulin deficiency	7	14.6
Do not know	4	8.3

Table 3

Self care to prevent/control diabetes?

Options	Frequency	Percentage
Reduce intake of starchy food	42	87.5
Regular exercise	4	8.3
Healthy Eating Plan	2	4.2
Consistent drug therapy	14	29.2
Using herbal drugs	26	54.1
Checking Pharmacy	36	75

Table 4

Self care measure in urine testing for glucose?

Options	Frequency	Percentage
Test Strip	6	11.5
Test Tabs	9	18.8
Testing with the tip of the tongue or observation of ants around urine	33	68.8

Table 5

What is the kind of food to eat by a diabetic patient?

Options	Frequency	Percentage
A lot of grains vegetable and fruits	7	14.6
A lot of proteins	17	35.4
A lot of starchy food	1	2.1
A lot of beans, meat, and vegetables	23	47.9

The findings showed that many of the patients (65%) were in the age range of 50 years or more and 4% were in the age range of 30 -39 years old. 76.2% were females whereas 23.8% were males. They were mostly married (94%) and majority (79%) were literate. 83% of the respondents were civil servants while 7% were traders. As shown in Table 1, majority of the subjects (81.2 %) knew what diabetes is in terms of knowing that it is a sugar disease while only 6.25% did not know what diabetes is. Table 2 showed that most of the respondents (77.0%)

stated that diabetes was caused by poison while only 14.6% had knowledge of the main cause of diabetes-lack of insulin. According to Table 3, majority of the subjects (88.5%) stated that avoiding starchy foods is a self-care measure in the prevention/control of diabetes, 74.0% stated that going to the chemist/patent medicine store for treatment is another measure, while only 4.2% stated that embracing a healthy eating plan is a self-care measure in diabetes prevention/control. In assessing methods of urine testing, 69.8% reported that non scientific methods should be used. The results also indicated that 11.5% claimed to know they should use test strips, whereas 18.75% indicated that test tablets should be used (Table 4). Knowledge of the kind of food a diabetic patient should eat revealed that 47.9 and 35.4% agreed with eating of beans/meat and a lot of other proteinous foods, respectively, while 14.6% opted for whole grains, fresh vegetable and fruit.

DISCUSSION

Majority of the subjects (81.2%) know what diabetes is in terms of knowing that it is a sugar disease. This finding was expected since all of them were already sufferers and most of them were literate. The findings agree with Ngwu (2005) in her study, which found that 75% of diabetic patients attending University of Nigeria Teaching Hospital Enugu had good knowledge of the disease. The belief of the respondents that diabetes is caused by “poison” despite their high level of literacy was surprising. This is likely to have grave consequences on their health-seeking behavior as well as on the general population because people might be dying of this diabetes, while seeking unorthodox treatment in a bid to rid themselves of the so-called “poisons”.

The knowledge of the subjects regarding self-care measures to manage/control diabetes in order to prevent complications revealed that significant number of subjects (74.0%) believed in patronizing patent medicine stores, while a minority (4.2%) agreed that embracing a healthy eating plan is necessary. This showed lack of knowledge. Prevention of complication of diabetes involves complying with drug treatment and diet regimen as well as adapting simple health and self-care measures that prevent injury especially to the lower extremities of the body as well as maintain skin integrity. Lacks of knowledge of this magnitude will likely place diabetics at risk of doing those things that might predispose them to complications. More than half of the respondents thought that herbs could cure diabetes. This again is another important finding because even though there are many potent herbs available for the treatment of many ailments, many of those works have not been conclusive.

The implication of this finding is that it may likely affect their compliance to orthodox treatment. These two findings did not agree with (Ngwu, 2005) and (Badruddia et al, 2002) who both found that the knowledge and awareness of respondents about diabetes was satisfactory. However, they agreed with (Badruddia et al, 2002) in their findings that misconceptions were common. Majority of the respondents (87.5%) stated that the avoidance of starchy foods is a self-care measure to prevent and control diabetes. This is a fairly good knowledge regarding diabetes management, which will likely guide them in the planning of their diet. Regarding the Information about the knowledge of self-care in management of diabetes, their knowledge about

method of urine testing was assessed. Majority reported that they utilized non-scientific method in testing urine for sugar.

These include using the tip of the tongue to test urine and voiding on the ground and observing if ants will come around it. Testing urine by non scientific methods will not give accurate information about the level of the sugar in urine. The implication is that complications like hypoglycemia may still occur among the respondents. The kind of food a diabetic patient should eat was another factor considered in determining the knowledge of self-care by the diabetic patients. The findings showed that only few patients had good knowledge of the nutritional management, which is an important factor in self-care. The percentage that responded positively to the option that they should eat a lot of whole grains, fresh vegetables and fruits was low. This showed lack of knowledge of the value of fruits and vegetables, as regards the role of antioxidants contained therein, in scavenging free radicals. These free radicals have been implicated in the causation of oxidative stress, which is fast becoming the nutritional and medical buzzword of the 21st century. It is stated that it is beyond any doubt, the root cause of well over seventy (70) chronic degenerative diseases, of which diabetes is one (Strand, 2007). It has also been noted that whole grains and legumes fulfill the four dietary objectives for diabetics – high complex carbohydrates, high fiber, low fat and refined sugar (Dyuff, 2006). She also counseled that vegetables and fruits should be part of every meal. However, only 14.6% of the respondents knew this.

This will likely have implications on their diet and overall health. Regarding responses to the nature of health information received by the patients from the health care providers, the respondents were tested on two aspects of information received on diabetes – the cadre of health care providers taught them anything on diabetes and the areas covered. Nurses were the least followed by the doctors. The findings were actually demoralizing because doctors and nurses were the irreducible pair that has the highest contact time with the patients, so they are expected to take the lead in providing relevant information to the patient/client. However, they have neglected this important aspect of their service. This agrees with the fact that there is no concrete evidence to show that diabetic patients are periodically informed of the things they should do to be able to manage the disease (Bushfield, 1986). The implication is that these patients may not receive adequate information. Some of the patients got no information at all, yet they consulted doctors and were cared for by nurses. This finding is significant and implies that nurses and doctors despite their strategic position in the care of these patients are not living up to their responsibilities of health counseling and education of patients/clients.

RECOMMENDATIONS

1. A well-organized and structured education/counseling program should be established at the Federal polytechnic clinic, Kaura namoda as quickly as possible for diabetic patients.
2. Outreach programs should be organized in schools, civil service centers and rural communities.

3. Health care providers should take time to explain in depth on diabetes, causes and prevention/control through health and self-care measures to prevent complications.
4. Family members of diabetic patients should also be counseled to adopt a healthy lifestyle in order to prevent diabetes.
5. Programs such as exercise and self-care monitoring should be organized to equip them to effectively monitor their blood glucose level as well as control their diet accordingly. Studies on similar context but with wider scope and much larger sample size are recommended to confirm findings of this study.

CONCLUSION

Based on the findings of the study, it was observed that majority of the diabetic patients attending the federal polytechnic clinic Kaura namoda have knowledge of what diabetes mellitus is but do not know the causes, prevention, control, self monitoring and other self care measures. It will be beneficial if information center for teaching diabetic patients is established. Also doctors, nurses and other members of health team should join hands to help these diabetic patients live healthy lives by providing them with the right information at every available opportunity.

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