

Original article

Assessment of knowledge among diabetes patients attending District Hospital at Bhilwara, Rajasthan

¹DrArun Gaur(MD medicine)*, ²DrRajni Gaur (MS Ophthalmology) , ³Dr Kirti Shekhawat

¹Senior Specialist & Head, Department Of Medicine, Mahatma Gandhi Hospital, Bhilwara. Rajasthan 311001

²Senior Specialist & Head, Department Of Ophthalmology, Mahatma Gandhi Hospital, Bhilwara. Rajasthan 311001

Corresponding author*

Abstract

Background: Poor awareness and practices among diabetic patients are some of the important variables influencing the progression of diabetes and its complications, which are largely preventable through education and involvement of the patient.

Methods: A hospital based cross sectional study was conducted among type 2 diabetics attending diabetes clinic. Knowledge and self care practices were evaluated using a semi structured questionnaire.

Results: A total of 100 diabetic patients consented and participated in the study of whom 60% were male and 40% female. Majority of the respondents 45% between the age of 41-50 years and 65% belonged to lower class, and 60% had a duration of disease between 1 to 5 years. 65% were aware of importance of exercise for the control of disease while 75% said that modification in diet is essential for the control of the disease. 69% of the respondents had achieved glycemic control. Among self care practices, following a controlled diet, regular exercise, and compliance with drugs were significantly associated with the achieving glycemic control.

Conclusion: As evidenced by the study, patients who were regularly involved in self care practices have achieved better glycemic control.

Key words: knowledge, self care practices, type 2 diabetes, glycemic control.

Introduction

The prevalence of the diabetes is increasing at an alarming rate particularly in developing countries. Estimate of global diabetes prevalence predict 6.4%, affecting 285 million adults in 2010, and will increase to 7.7% and 439 million adults by 2030. (1) India harbors the largest number of diabetic patients in the world. The International Diabetes Federation (IDF) reported that the total number of diabetic subjects in India is 41 million in 2006 and that this would rise to 70 million by the year 2025.(2) Increased prevalence in India is attributed to the lifestyle transition coupled with urbanization, industrialization and lifestyle changes.(3) Poor

awareness and practices among diabetic patients are some of the important variables influencing the progression of diabetes and its complications, which are largely preventable. Compared with the general population incidence of Coronary heart diseases and stroke are more among patients of diabetes. Quality of life further impacted by complications like diabetic renal disease and diabetic retinopathy and neuropathy which are frequently occurring among the patients having poor glycemic control. Developing countries which are already overburdened have to muddle through with the additional challenges posed by the chronic non communicable disease. Sub-optimal treatment, inadequate health education and follow up

leads to the poor glycemic control and increase the toll of unnecessary disabilities among the people(4). It is therefore essential to provide comprehensive services including health education regarding the self management of the disease in order to prevent the debilitating complications which in long term reduces the enormous financial burden on the health care system. Helping patients to achieve their best possible level of glycemic control will require the utilization of appropriate therapy, appropriate monitoring, and comprehensive instruction in diabetes self-management. Selfcare in the form of adherence to diet and drugs, blood glucose monitoring, foot care, exercise, recognition of symptoms is crucial elements in secondary prevention. Interventions to promote better self-management have reported improvements in blood glucose control and Improved glycemic control is highly advantageous in preventing the long term complications of type 1 and type 2 diabetes as demonstrated by various studies (5),(6),(7),(8). Diabetes self-management education is teaching people to manage their diabetes has become an important part of the clinical management of diabetes however the process is often complex, demanding and not given much emphasis at professional level because of the time constraint of clinicians. Assessment of patient's knowledge and practices about diabetes is imperative in developing various intervention strategies and educational material. The study aimed to evaluate the role of disease knowledge and self care practices and their role in achieving glycemic control and disease management.

MATERIAL AND METHODS

A cross sectional study was conducted among patients with type 2 diabetes mellitus attending the diabetes clinic. The purpose of the study was

explained and informed consent was obtained from the respondents. Privacy and confidentiality was ensured during the process. 100patients were consented and participated in the study. A semi structured questionnaire was administered which consisted of the following parts A).Sociodemographic information, B) Diabetes specific information C)Knowledge regarding diabetes among patients D)Self care practices followed by the patients. Socio-demographic information including patients age, gender, and educational status. Socioeconomic status of the patient was calculated by using Kuppaswamy classification including total family monthly income, occupational and educational status of the respondents(9). Diabetes specific information including the duration of the disease, glycemic levels, mode of treatment and medical care personnel. Knowledge of the respondents was assessed by questions related to the nature of the disease, method of detection of diabetes, importance of diet, exercise and drug compliance in controlling the disease etc. Self care practices were assessed by patients' behavior regarding testing blood sugar, following healthy eating plan, exercise, compliance to the drugs and checking feet regularly etc. Patients were classified into those who had achieved glycemic control and those who did not, based on the fasting blood sugar levels < than 110 mg/dl based on Consensus Statement on Guidelines for Glycemic Control provided by American College of Endocrinology(10). Self care practices were compared across the two groups and significant associations evaluated. Statistical methods used included frequencies, proportions and chi square test.

RESULTS

A total of 100diabetic patients consented and participated in the study of whom 60%weremale and

40%female. Age ranged from 35 years to 65 years in the sample with majority of the respondents (45.30%) between the age of 41-50 years. Socioeconomic status was assessed by categorizing the patient into lower, middle and upper class, 65% belonged to lower class, 25% to the middle class and 20% to upper by Kuppuswamy classification. Most of the respondents, 60 % had a duration of disease between 1 to 5 years whereas 10% of the people were having duration less than one year. On the knowledge regarding diabetes questionnaire, 72% correctly answered regarding the hereditary nature of the disease, 85% correctly answered regarding non infectious nature of the disease. Regarding mode of investigation of the disease, 97% answered that diabetes can be diagnosed by blood sugar examination. 65 % were aware of importance of exercise for the control of disease while 78% said that modification in diet is essential for the control of the disease. 64% said that quitting smoking or alcohol is beneficial for control. Drugs should be continued even after control of blood sugar was the response from the 87 % while diabetes cannot be cured was the response from 68% of the respondents.69% of the respondents had achieved glycemic control based on their fasting blood sugar levels less than 110 mg while 31% had not. Among self care practices, following a controlled diet, regular exercise and compliance with drugs were associated with the achieving glycemic control.

DISCUSSION

The present study is a hospital based cross sectional study conducted among subjects having type 2 diabetes attending diabetes clinic and mainly focus on evaluation of knowledge among diabetes patient and their self care practices and its relation with glycemic control. Majority of the respondents

belonged to the age group of 41-50 years as the disease usually comes in light after middle years of life however the age group of the patient is little younger compared to the findings of the studies conducted by Priyanka et al and Shah et al (11), (12). This variation may be because of selection bias. Majority of the patients suffering from diabetes were from 1-5 years and majority belonged to lower socioeconomic strata. One of the promising findings of our study is good number of respondents had positive knowledge regarding diabetes. Change in the knowledge brings change in the practice to bring desirable changes for controlling the disease. Highest scores were obtained on mode of detection of diabetes. Almost two third respondents were aware of importance of exercise, diet control and drug compliance. These findings are consistent with the finding observed by Shah et al and Priyanka et al (11), (12). Significant numbers of the respondents, achieved glycemic control in the present study. As evidenced by the study, there is a association between the patient following a healthy diet, involved in regular exercise and compliant to the drug therapy with their glycemic control and these findings are in consistent with the studies conducted by WyunNyunt S et al and Jones H et al (5),(6).

CONCLUSION

As evidenced by the study, patients who were more self aware about the disease, having knowledge and regularly involved in self care practices achieve better glycemic control and better management of the disease. Regular inculcation of health education, making the patient aware regarding the disease and encouraging self care management during treatment will reduce health care burden and help achieve optimal control of the disease with minimal long term complications.

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