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ORIGINAL ARTICLE

KNOWLEDGE AND ATTITUDE OF DIABETIC PATIENTS ABOUT DIABETES IN INDIAN POPULATION

Santosh Kumar Naveen

Consultant, 103/66 Madhyam Marg, Mansarovar, Jaipur

ABSTRACT:
Background: In India, Diabetes is one of the fastest gaining diseases with potential epidemic of more than 62 million diabetic individuals currently diagnosed with the disease. Result of randomized control trial from Australia showed that knowledge of the risk factors of diabetes and motivation to life style change were powerful predictors of change in diet and exercise, and associated were with a significant reduction in body mass index, waist circumference and fasting blood glucose. Hence, we studied the knowledge and Attitude of diabetes patients about diabetes in Indian population. **Materials & Methods:** The present study was carried out all diabetic patients reporting to the general medicine department of the hospital in Lucknow, for treatment. Subish et al's criteria was used for framing a questionnaire for diabetic patients. A total of 200 diabetic patients reporting from June 2014 to July 2015 were included in the study. The questionnaire of 22 questions were given to the patients and evaluated and each correct answer was given a score of 'one' and each wrong answer was given a score of 'zero'. The structured patient profile form included parameters like age and gender, family history of diabetes, number of drugs prescribed, therapeutic category of the drugs prescribed, response to the knowledge, attitude and practice questionnaire and their mean ± SD scores. All the results were analyzed by SPSS software and evaluated for level of significance. **Results:** A total of 200 patients were included in the present study. Out of 200, 110 were males and rest were females (45%). Maximum number of patients were in the age group of 51-60 years (88) followed by 61-70 years. The mean age of the patients was 55.7 ± 12.12 years. 2 patients had their parents affected by diabetes. For 170 patients, the family history was not available. For the present study population, a total of 690 drugs were prescribed. The commonest class of drugs prescribed were anti-diabetics. **Conclusion:** There exists a low level of knowledge and attitude among diabetic patients towards diabetes.
Key words: Attitude, Diabetes, Knowledge

Corresponding Author: Dr Santosh Kumar Naveen, Consultant, 103/66 Madhyam Marg, Mansarovar, Jaipur

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INTRODUCTION

In India, Diabetes is one of the fastest gaining diseases with potential epidemic of more than 62 million diabetic individuals currently diagnosed with the disease.[1,2] India had the highest number of diabetes mellitus patient s followed by China in 2000. According to Wild et al. the prevalence of diabetes is predicted to double globally from 171 million in 2000 to 366 million in 2030 with a maximum increase in India.[3] It is predicted that by 2030 diabetes mellitus may afflict up to 79.4 million individuals in India, while China (42.3 million) and the United States (30.3 million) will also see significant increases in those affected by the disease.[4] Result of randomized control trial from Australia showed that knowledge of the risk factors of diabetes and motivation to life style change were powerful predictors of change in diet and exercise, and associated were with a significant reduction in body mass index, waist circumference and fasting blood glucose.[5,6] However, this topic needs further research in developing countries.

Hence, we studied the knowledge and Attitude of diabetes patients about diabetes in Indian population.

MATERIALS & METHODS

The present study was carried out all diabetic patients reporting to the general medicine department of the hospital in Lucknow, for treatment. Subish et al's criteria was used for framing a questionnaire for diabetic patients.[7] A total of 200 diabetic patients reporting from June 2014 to July 2015 were included in the study. All the patients were pre-informed about the study protocol and written consent was obtained from them. The questionnaire had 22 questions (knowledge-18 and attitude-4questions) and each correct answer and was given a score of 'one' and each wrong answer was given a score of 'zero'. The structured patient profile form included parameters like age and gender, family history of diabetes, number of drugs prescribed, therapeutic category of the drugs prescribed, response to the knowledge, attitude and practice questionnaire and their mean ± SD scores. The maximum possible scores for knowledge and attitude patients are 18 and 4 respectively. All the results were analyzed by SPSS software and evaluated for level of significance.

RESULTS

A total of 200 patients were included in the present study. Out of 200, 110 were males and rest were females (45%). Maximum number of patients were in the age group of 51-60 years (88) followed by 61-70 years. The mean age of the patients was 55.7 ± 12.12 years. **Table 1** shows the response of the patients regarding the knowledge related questions. 2 patients had their parents affected by diabetes. For 170 patients, the family history was not available. For the present study population, a total of 690 drugs were prescribed. The commonest class of drugs prescribed were anti-diabetics which accounted for 350 of the total drugs followed by cardiovascular drugs and others. **Table 2** shows the response of the patients towards the attitude related questions.

Table 1: Response of the patients to the knowledge questions

Questionnaire	Patients replying to the questions with correct answers
Diabetes refer to ……	72
Cause of diabetes is ……	39
Clinical symptoms of diabetes are ……..	72
If untreated, Diabetes results in……..	
Diabetes can be monitored most accurately by…	71
Result of diabetes on hypertension is ……..	110
Should diabetes patients measure their blood pressure…	55
Changes in lifestyle required for diabetes patients are…	15
Should diabetes patients have a regular eye check-up….	50
Regular urine analyses are helpful in ……..	91
Blood sugar levels can be controlled by…….	35
A regular exercise regimen will help in……	76
The well-balanced diet includes……	19
For proper foot care, a diabetic patient…..	43
Treatment of diabetes comprises……	28
Diabetes cannot be treated with…..	20
Upon control of diabetes, the medicines…..	17
How do you manage hypoglycaemic symptoms…..?	80

Table 2: Response of the patients to the attitude questions

Questions	Patients replying to the questions with correct answers
Do you do regular physical exercise……?	125
Are you following a balanced diet as prescribed by the physician……?	160
Do you take medication regularly……?	130
Are you aware of blood sugar levels falling below normal when you are taking drugs…….?	42

DISCUSSION

One of the problem faced by the developing countries is the prevalence of diabetes which is rapidly rising all over the globe at an alarming rate.[8] From past three decades, the status of diabetes has changed from being considered as a mild disorder of the elderly to one of the major causes of morbidity and mortality affecting the youth and middle aged people. In all six inhabited continents of the globe, the rise in its prevalence is seen. More than 90 per cent of all diabetes cases are comprised by type 2 diabetes, although an increase in the prevalence of type 1 diabetes is also seen. Nowhere is the diabetes epidemic more pronounced than in India as the World Health Organization (WHO) reports show that 32 million people had diabetes in the year 2000.[9] The International Diabetes Federation (IDF) estimates the total number of diabetic subjects to be around 40.9 million in India and this is further set to rise to 69.9 million by the year 2025.[10] From the above results, we observed low scores of knowledge and attitude of the patients towards diabetes. However, good knowledge, attitude and practice score was observed in Malaysia survey. [11] Differences in the literacy of the study patients, the training received by them and availability of information on diabetes might contribute to the difference in the findings among different studies. In some parts of the country, unavailability of these facilities might have contributed to a low level of knowledge and attitude. It is well understood that diabetes management requires patient involvement for a better disease control.[12, 13] Improving knowledge level of the patients regarding the drugs can be done by many ways including group education as well as through patient counseling.[14, 15] For controlling of Diabetes, various strategies to modify lifestyle includes providing diabetes leaflets along with direct education programs. It is essential for the patients to have knowledge regarding the importance of Self Monitoring of Blood Glucose and regular blood pressure (BP) check up. In the present study, less than 10% of the patients were aware of the importance of regular BP check up. Since, diabetes can be managed well with adequate patient involvement, improving their KAP should be prioritized. In a country like India, this is very important and the healthcare professionals should actively provide education to diabetes patients. A measure of lifestyle modification helps in preventing the onset of diabetes, and the fact is proved by various prospective studies. [16- 18] The Indian Diabetes Prevention Programme (IDPP), a preventive study done in India based on the Diabetes Prevention Program (DPP) has proved the importance of physical work out in the prevention of diabetes. Early identification of the high risk individuals would help in taking appropriate intervention in the form of dietary changes and increasing physical activity, thus helping to prevent, or at least delay, the onset of diabetes. This means that identification of at risk individuals is extremely important if we are to prevent diabetes in India. Recently, risk scores based on simple anthropometric and demographic variables have been devised to detect high risk individuals.[19, 20] But it is also evident that a common risk score cannot be applied for all ethnic groups.[21] Hence ethnic specific risk scores are extremely important in identification of at risk individuals in a particular ethnic group. Many misconceptions remain about the nutritional advice for people with diabetes in developing countries. Reduction of sugar and carbohydrate controls diabetes is an old myth. Rather, the main aim is to reduce total weight through lifestyle behavioural practice including increasing the amount of exercise, reducing the intake of highly refined foods, including more legumes, vegetables, whole grains and fruits, and reducing or stopping smoking.[22, 23] The present research directs towards the fact that greater efforts are needed to direct the patient toward improving the health standards and increasing the knowledge about the clinical symptoms and progression of the disease.[23]

CONCLUSION

From the above results, it can be concluded that among the diabetic patients, there exists a low level

of knowledge and attitude towards diabetes. The results, suggests that there is a need of spreading more knowledge and awareness to the general and diabetic population about diabetes and its treatment.

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