

A STUDY OF KNOWLEDGE AND ATTITUDE ABOUT THE DIABETES, AMONG DIABETIC PATIENTS

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Abstract

Background: The present study was conducted with the aim to determine the knowledge, attitude and practice of diabetes amongst population.

Methods: Hospital based study was conducted on DM patients attending the diabetes center, medicine OPD and medicine IPD within the study period were recruited in the study after taking written inform consent.

Results: Regarding knowledge about complications of diabetes i.e. heart disease stated to be the highest in patients which was 201 (40.2%) followed by wound healing 110(22.00%), eye disease 102(20.4%), peripheral neuropathy 96 (19.2%) and kidney diseases 92(18.4%).

Conclusion: From our study it was concluded that Knowledge about what disease is, was good and regarding symptoms (frequent urination) was also good but complication(Heart disease, stroke, kidney disease, eye disease, peripheral neuropathy, wound healing) was poor.

Keywords: DM, OPD, IPD.

Introduction:

Diabetes Mellitus (DM) is one of the most challenging public health problems in 21st century. ¹ It is important to know about the awareness level of a disease condition in a population, which plays a vital role in future development, early detection and prevention of disease. Prevention is important because the burden of the diabetes and its complications on health care and its economic implications are enormous, especially for a developing country like India. Patient education is always considered an essential element of DM management².

The increase in diabetes amongst low-resource countries is partly due to lack of knowledge and awareness about the disease as it is insidious in onset and people remain undiagnosed until major complications set in. Knowledge plays a pivotal role in any development of disease and its early detection and prevention. Patients with diabetes should have positive knowledge, attitude and practice. All these elements are closely related to each other and are dependent on each other. As diabetes is concerned, the knowledge, attitude and practice are dependent on socioeconomic background, habits and cultural beliefs. Proper knowledge of diabetes mellitus can prevent the occurrence of chronic complications associated with DM, which significantly influence the quality of life of patients with diabetes.³

Most studies have used measurements such as blood glucose level and knowledge, attitude and practice (KAP) as the index of diabetes management. Very few studies have been conducted in North Western Rajasthan to evaluate the level of awareness, attitudes and practices among patients with DM so the present study was conducted with the aim to determine the knowledge, attitude and practice of diabetes amongst population.

Material and Methods

Study design: Hospital based cross-sectional study.

Study place: Dept. of General Medicine, S.P.Medical College and P.B.M Hospital, Bikaner

Study population: DM patients attending the diabetes center, medicine OPD and medicine IPD within the study period were recruited in the study after taking written inform consent.

Inclusion Criteria:

- Dm patients attending the diabetes center, medicine OPD & IPD
- Willing to participate in the study.

Exclusion Criteria:

- Patients less than 14 years

➤ Patients are not willing to participate in the study.

Data Collection:

Once included, a structured and validated questionnaire form was filled up by the study subjects after being properly explained by the principal investigator and enough time was provided to each patient. Socio-demographic information (age, sex, occupation, residence, education), family history of diabetes, history of alcohol and history of tobacco consumption was recorded. The questionnaire also contained a series of questions on awareness of DM knowledge.

Data Analysis:

- All data were analyze on EPI-info statistical software.
- Qualitative data were expressed in the form of proportion.
- Quantitative data were expressed in mean \pm SD
- Qualitative data were compared by Chi square test
- Unpaired t test were use to infer the difference in means.

Results

Table 1: Socio-demographic variable

Age group (yrs)	Sex				Total	
	Female		Male		No	Percentage
	No	Percentage	No	Percentage		
19-30	2	33.33	4	66.67	6	1.2
31-45	21	35.00	39	65.00	60	12.00
46-60	87	43.50	113	56.50	200	40.00
61-75	83	41.09	119	58.91	202	40.4
>75	19	59.37	13	40.63	32	6.4
Total	212	42.40	288	57.60	500	100.00

P-value=0.244

In our study out of 288 male subject, 87 subject were from 46-60 yrs age group followed by 83 subject were from 61-75 yrs age group and out of 212 female subject maximum 119 subject were from 61-75 yrs age group.

Table 2: Respondent's correct knowledge regarding diabetes mellitus (n=500).

Variable	No of subject	Percentage
What is diabetes?	409	81.80
What causes diabetes?	364	72.80
Know about type of diabetes ?	360	72.00
Is diabetes related to life style?	478	95.60
Diabetes is diagnosed by blood sugar examination?	360	72.00
Is obesity related to diabetes?	477	95.40
Can smoking / alcohol is lead to diabetes ?	454	90.80
Can excessive sugar intake lead to diabetes ?	431	86.20
Is diabetes Hereditary?	46	9.20
Diabetes cannot be cured?	477	95.40
Can complication develop in diabetic subject due to diabetes?	387	77.40

On the knowledge regarding diabetes questionnaire, the assessment regarding the knowledge of diabetes was good as 409 (81.80%) of the population knows what diabetes is and 364 (72.80%) knows the causes of diabetes. It was observed that 46 (9.20%) had knowledge about the hereditary nature of the disease, 360 (72.0%) had correctly answered that diabetes can be diagnosed by blood sugar examination. 454 (90.80%) said that quitting smoking or alcohol is beneficial for control. 477 (95.40%) knows that diabetes cannot be cured.

Table 3: Respondents correct knowledge about symptoms of diabetes (n = 500).

Symptoms	No of subject	Percentage
Frequent urination	454	90.8
Frequent hunger	32	6.4
Frequent thirst	31	6.2
Weight loss	30	6.00
Numbness	60	12.00
Don't know	40	8.00

It was observed that 454(90.8%) knew that frequent urination is the most common symptom of diabetes whereas symptoms such as frequent hunger(6.4%), frequent thirst(6.2%), weight loss (6.00%) and numbness in feet (12.00%) was low.

Table 4: Respondents correct knowledge about risk factors of diabetes (n = 500).

Risk factor	No of subject	Percentage
Obesity	319	63.8
Increasing age	412	82.4
Family history	423	84.6
Sedentary life style	350	70.00
Mental stress	380	76.00
Hypertension	160	32.00
Fast food	350	70.00
High cholesterol	84	16.8
Don't know	40	8.00

It was observed that mental stress, sedentary life style, overweight, increasing age and oily food i.e. 76.00%, 70.00%, 63.8%,82.4% and 70.00% respectively were common risk factor of diabetes known to subject. 8.0% subject were found to have no knowledge regarding the risk factors.

Table 5: Respondents correct knowledge about complications of diabetes(n = 500).

Complication	No of subject	Percentage
Heart disease	201	40.2
Eye disease	102	20.4
Peripheral neuropathy	96	19.2
Stroke	94	18.8
Kidney problem	92	18.4
Wound healing	110	22.0

Regarding knowledge about complications of diabetes, heart disease was stated to be the highest in subject which was 201 (40.2%) followed by wound healing110(22.00%), eye disease 102(20.4%), peripheral neuropathy 96 (19.2%) and kidney diseases 92(18.4%).

Discussion

The increasing prevalence of diabetes and its complications in India would pose a real threat to existing health services. Awareness about risk factors of diabetes and its treatment can assist in early prevention of its complication and reduce incidence of diabetes.

On the knowledge regarding diabetes questionnaire, the assessment regarding the knowledge of diabetes was good as 409 (81.80%) participants knew what diabetes is and 364 (72.80%) knew the causes of diabetes. It was observed that 46 (9.20%) had knowledge about the hereditary nature of

the disease, 360 (72.0%) had correctly answered that diabetes can be diagnosed by blood sugar examination. 454 (90.80%) said that quitting smoking or alcohol is beneficial for control. 477 (95.40%) knew that diabetes cannot be cured.

In a study done by Khandelwal A et al⁴ observed that the assessment regarding the knowledge of diabetes was good as 187 (62.3%) of the population knows what diabetes is and 163 (54.3%) knows the causes of diabetes. It was observed that 201 (69.0%) had knowledge about the hereditary nature of the disease, 274 (91.3%) correctly answered regarding non-infectious nature of the disease and 279 (93.0%) had correctly answered that diabetes can be diagnosed by blood sugar examination. 235 (78.3%) were aware of importance of exercise for the control of disease while 226 (75.3%) said that modification in diet is essential for the control of the disease. 221 (73.7%) 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 240 (80.5%) and 215 (71.6%) knows that diabetes can be cured. Their result were similar to our study.

In a study done by Nagar V *et al.*⁵ observed that around 16% of the participants scored 15 or more out of total score of 26, and were categorised as having good level of knowledge, 34.6% of participants scored less than or 9 (poor knowledge) and 49.3% scored between 10 to 14 points (moderate knowledge). 67% patients were aware that diabetes is characterised by raised blood sugar. Only 26% patients knew that diabetes is characterized by higher blood glucose level than normal whereas most of them (32%) think that increased urination is the only symptom of diabetes. Out of 250 patients only 29% (n=88) knew the normal range of blood glucose level. About two-third (62%) of the participants knew that diabetes can cause complication or organ damage in which most of the patient's stated eye and kidney as the commonest site for complication. 14% of the population didn't know any kind of complications regarding the diabetes. 41% people were aware that diabetes can prevented by healthy diet and regular exercise and about 24% of them think that blood pressure control is necessary in diabetes whereas only 29% patients were aware about the symptom of hypoglycaemia. Their result were similar to our study.

It was observed that mental stress, sedentary life style, overweight, increasing age and oily food i.e. 76.00%, 70.00%, 63.8%, 82.4% and 70.00% respectively were common risk factor of diabetes known to patients. 8.0% patients were found to have no knowledge regarding the risk factors.

The finding suggests need for adequate counseling of all diabetic patients not only at the time of diagnosis but time and again at each and every follow up visit in order to reinforce the importance of drug compliance. The findings of the present study were quite similar to the findings of studies conducted on knowledge on risk factors of diabetes in different population groups.⁶ In contrast to our findings, a study conducted in Warangal revealed that 63.5% of the participants correctly knew that there was no relation between excess sweet consumption and causation of diabetes.⁷⁻⁸

The findings are consistent to the study conducted in Saudi Arabia, where obesity and lack of physical exercise were the risk factors of diabetes as most frequently stated by the respondents.⁷ However, in a Chennai study, it was found that knowledge about the role of obesity and physical inactivity in the occurrence of diabetes was very low, with

only 12% of study subjects reported these as the risk factors for diabetes.⁹

Conclusion

From our study it was concluded that Knowledge about what disease is, was good and regarding symptoms (frequent urination) was also good but complication (Heart disease, stroke, kidney disease, eye disease, peripheral neuropathy, wound healing) was poor.

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