Research Paper life Science

Diabetes Mellitus Type 2- Knowledge, Awareness and Practices of Patients

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ABSTRACT

Introduction- Diabetes is a growing public health problem, especially in India. The global burden may reach a level of almost 300 million patients in 2025 with similar alarming increase in India. Gujarat is known as a capital of Diabetes. There are several studies from various parts of Gujarat which reveal a rising trend in the prevalence of type- 2 Diabetes in the urban areas (Gupta OP, 1970). Diabetes is no longer a disease of the affluent or a rich man' disease it is becoming a problem even among the middle income and poorer section of the society. The poor diabetic subject are more prone to complication as they have less knowledge, poor awareness, and little access to costly health care. Those patients who have good knowledge but less self care practices are also has possibility to complication. Less knowledge, poor awareness and less self care practices are some of the important variables influencing the development and progression of diabetes and its complication, which are largely preventable.

Methodology- This study was done to assess knowledge, awareness and practices regarding prevention and control of diabetes mellitus type 2 among patients which will help to plan strategies to the health practices. Descriptive study in 617 type 2 diabetic patients aged ≥ 20 years was undertaken from the general hospital, District NCD cell and selective places like private clinics, medical stores, yoga camps and public places in the Gandhinagar. Data collected through pre-designed questionnaire.

Result- Mean age was 54.37±13.10 years, 57.54% were males and 42.46% were females. 20.35%patients had less, 57.4%patients had average and 22.3% patients had good knowledge. More than 60% patients had good awareness.46.4% patients were taking extra care in case of HBP and Heart trouble. 30.7% were exercising regularly. Good number of patient had good knowledge and good awareness regarding diabetes, even though the same cannot take self care.

KEYWORDS Knowledge, self care, awareness, diabetes type 2.

INTRODUCTION

India is currently experiencing a rapid epidemiological transition from communicable to non communicable diseases viz. diabetes mellitus, hypertension and ischemic heart disease. Rapid industrialisation and urbanisation with subsequent rise in standards of living, obesity, stress, sedentary life style, addictions etc. are posing a growing threat to the health of the nation. Diabetes is a growing public health problem, especially in India. Almost everyone knows someone who has diabetes. According to the health organisation estimates, India had 32 million diabetic populations in the years 2000 and this number would increase to 80 million by the year 2030. (Mohan V et al 2010). About 90 to 95 percent of people with diabetes have type 2. Number of people with diabetes in India currently around 40.9 million is expected to rise to 69.9 million by 2025 unless urgent preventive steps are taken (Sicree R et al, 2006). Gujarat is known as a capital of Diabetes. There are several studies from various parts of Gujarat which reveal a rising trend in the prevalence of type- 2 Diabetes in the urban areas.

A multicentre ICMR funded study reported 1.73% overall prevalence (3.7% of urban and 1.9% of rural) in Ahmedabad (Mohan V et al 2007, Gupta OP, 1970). People of Gujarat are known to be prone to develop diabetes because of genetic susceptibility, sedentary lifestyle and dietary preference for sweet and oily foods. Diabetes is no longer a disease of the rich man' disease, it is becoming a problem even among the middle income and poorer section of the society.

The poor diabetic subject are more prone to complication as they have less knowledge, poor awareness, and little access to costly health care. Those patients who have good knowledge but less self care practices are also has possibility to have complication. Less knowledge, poor awareness and less self care practices are some of the important variables influencing the development and progression of diabetes and its complication, which are largely preventable.

Self- care in the form of adherence to diet and drug regimens, blood glucose monitoring, self administration of insulin, maintenance of optimum weight, blood pressure, recognition of symptoms associated with diabetes mellitus type 2 etc. are crucial elements in prevention. Unfortunately, there is still inadequate awareness about the prevention and control of diabetes and its complication among the general population and diabetic population. This study was done to assess knowledge, awareness and practices regarding prevention and control of diabetes mellitus type 2 among patients which will help to plan strategies to the health practices.

METHODOLOGY

Descriptive study in 617 patients aged between 20-90 years having type 2 diabetes was undertaken from the general hospital, District NCD cell and selective places like private clinics, medical stores, yoga camps and public places in the Gandhinagar. Data collected through pre-designed questionnaire. Data are compiled and correlated on the basis of awareness and practices.

The pre-designed and pre-tested interview questionnaire contained information on various study variables. The questionnaire for the assessment of knowledge, awareness and self care practices, regarding prevention and control of diabetes mellitus type 2 among patients, contained 10 questions for consideration. The questions were [1] Do you consider diabetes as a serious disease? [2] Do you consume beverages with sugar/ without sugar/ artificial sweetener/ no beverages? [3]

Do you change your feeding habit? No sweet dish/less oily/ less rice/no potato/more vegetable/bhaji /amla/ khakara/ chana etc.?[4] Do you take regular medicine? [5] Do you do physical exercise / walking- regular/irregular/no exercise? [5] Monitoring blood sugar levels- once a month/after three month/ irregular? [6] Taking more care while travelling? Yes/no [7] Consulting with doctor after one month/ three month/irregular? [8] Taking extra care for HBP/ eye/ heart trouble / injury/ infection? [9] Doing meditation regularly/irregular/no meditation? [10] Do you use ayurvedic / traditional remedies?

Each correct response was assigned score 1 and wrong response was assigned 0 (zero). Thus for 10 items, the maximum attainable score was 10 and minimum was 0. The level of knowledge, awareness and self care practices was classified according to the score. Less knowledge, poor awareness and less self care practices was referred to scope ≤ 3, average knowledge, average awareness and average self care practices was referred to score between 4 and 6, good knowledge, good awareness and good self care practices referred to score ≥ 7. Data was analysed by using Microsoft excel and biostatistics.

RESULT

Table-1 Distribution of diabetes type 2 patients by sex total-617

Male	355(57.54%)
female	262(42.46%)

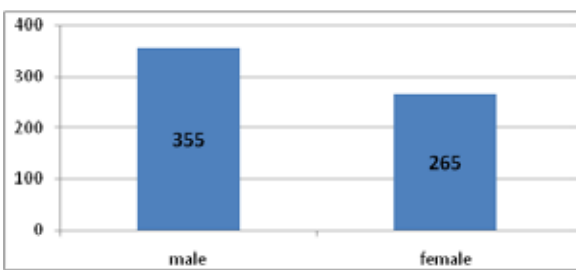


Figure -1 Distribution of diabetes type 2 patients by sex total-617

Out of 617 respondents, 57.54% respondents were males and 42.46% were females. Mean age of the respondents was 54.37±13.10 years. Among the study population, the Maximum prevalence of diabetes type 2 was in the 51-60 yrs. age group with 29.49%(182) which followed by age group 41-50yrs with 24.31%(146) and age group 61-70yrs. With 24.95 %(151).The least was in the age groups 20-30yrs. with3.7 %(23) and age group 81-90yrs. with 0.81 %(05).

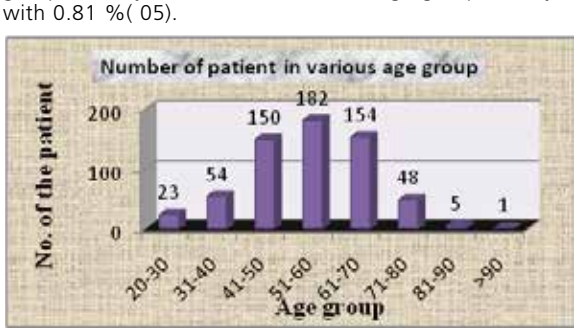


Figure-1 No. of patients in various age groups

20.35 % (126) respondents gave less than 3 correct answers.57.4 % (354) respondents gave correct answer between 4 and 6. 22.30% (137) of the respondents gave more than 6 correct answers.

Table-1 Distribution of respondents according to correct response

Response of the respondents	No. (%)
Less than 3 correct answers.	137(22.30%)
Correct answers between 4 and 6.	354(57.4%)
More than 6 correct answers.	126(20.35%)

Table -3 Distributions of respondents according to self care practices

CONSUME BEVERAGE WITH	
With sugar	171(27.57%)
Without sugar	407(66%)
Artificial sweetener	32(5.03%)
No beverage	7(1.3%)
STRICTLY FOLLOW MENU RECOMMENDED FOR DIABETES	
Yes	417(67.68%)
No	200(32.32%)
REGULAR MEDICATION	
Yes	552(89.56%)
no	65(10.44%)
EXERCISE	
Regular	189(30.7%)
Irregular	353(58%)
No exercise	74(12%)
CONSULT DOCTOR	
Regular	130(21.08%)
Irregular	487(78.92%)
MONITORING BLOOD GLUCOSE	
Regular	260(42%)
Irregular	357(58%)

Table 4 Distribution of respondents according to their knowledge and attitude

CONSIDER DIABETES AS A SERIOUS DISEASE	
Yes	509(82.5%)
No	65(10.5%)
Not answered	43(7%)
TAKING EXTRA CARE FOR HBP,HEART TROUBLE,INFECTION AND INJURY	
Yes	286(46.4%)
No	331(53.6%)
USE TRADITIONAL REMEDIES	
Yes	225(36.56%)
No	392(63.44%)

82.5% (509) of the respondent were considered diabetes as a serious disease. While 10.5% (65) disagreed and 7% (43) did not answered this question. 27.57% (171) consumed beverages with sugar (most probably, morning tea) once or twice, 66 %(407) consumed beverages without sugar, 5.03 %(32) consumed beverages with artificial sweetener, while 1.3 %(7) not used beverage at all. 30.35% (187) were not very strict about sugar while travelling. 85.36 % (526) of the respondents believed that they should not eat more sweet and oily diet. And 67.68% (417) were changed their feeding habit after diabetes.89.56 % (552) of the respondents were taking medicine regularly. But only 36.56 %(225) respondents were use traditional remedies and ayurvedic medicine.

30.7% (189) respondents were performing exercise regular, 57.3 %(353) respondent were exercise irregular, 12% (74) respondents were not interested in exercise. Only 21.08 % (130)

consulted doctor regularly. 58 %(357) respondent were lazy with regard to blood glucose monitoring.46.4% (286) taking extra care for high blood pressure, heart trouble, infection, and injury. While same were lazy about eye and kidney care.

DISCUSSION

- Mean age was 54.37±13.10 years in both sex.
- Study indicates that number of patient is increase with elder age group.
- Level of knowledge and awareness are increase with duration of diabetes.
- Most of the respondent are in 41-60 age group, majority of them were consider diabetes as a serious diseases, they believed that if proper care is not taken than they have more chance to have other severe complication. But this belief become strong after some complication occurs. That means increase duration of diabetes, increasing knowledge, and after minor complication, self care practice increasing among good number of respondents.
- Respondents who consulted in private clinic and yoga camp are more aware; they had more knowledge than the respondents of general hospital.
- Respondents who are doing exercise regularly and use traditional remedies had less complication after prolong duration diabetes in compares of those who were lazy to do exercises.
- Majority of the respondents were consuming beverage without sugar, and majority of them have changed their feeding habit after diabetes, but the same are not strictly following this during travelling.
- Majority of them are taking medicine regularly, but fewer of them have consulted doctor once in month. They have consulted doctor only after some complications occurred.
- Majority of them are not monitoring their blood sugar regularly, unfortunately some of them have not checked their blood sugar since a year.
- Some of respondent were very good in knowledge, their attitude was positive, they have consulted their doctor regularly, but still they have more complication, due to lack of exercise, excessive workload, tension and long duration of diabetes.
- Very fewer check their foot regularly.

CONCLUSION

Diabetes and their complications can largely be prevented if regular glucose monitoring and exercise is done by patients. If they strictly follow menu recommended for diabetes. This is happen by health education and motivation of enthusiastic diabetic patient. These both are bring a positive change in self care practices with regard to diabetes control. There are many medical education programmes on diabetes. Medical and paramedical personnel should formulated strategies for updating knowledge of diabetic population. Since there is a gap between knowledge, attitudes and practices among diabetes, it is important to formulated strategies so that the positive attitudes can be converted in to beneficial practices (priyanka CK et al 2010).

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