Knowledge, Attitude and Practice of Diabetes amongst Rural Population - An Institutional based Study

Mohan Lal Kanojia

ABSTRACT

Introduction: Type 2 diabetes mellitus is becoming a global epidemic which causes significant disability, premature death and is responsible for huge medical costs. 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. The present study was conducted with the aim to determine the knowledge, attitude and practice of diabetes amongst rural population.

Material and methods: The present cross sectional study was conducted by the Department of Medicine, MIMS during a period of 6 months. A total of 1100 subjects were interviewed and made to fill a pretested, predesigned questionnaire. The questionnaire consisted of three parts. In the first part there was information regarding the demographic detail of the subject like age, gender, education level etc. Percentage of the answers was established. All the data was arranged in a tabulated form and analysed using SPSS software.

Results: There were 44.8% (n=493) males and 55.2% (n=607) females who were enrolled in the study. Majority of the subjects were between 25-34 years of age (32.3%), there were only 17.6% subjects (n=194) who were greater than 40 years of age. There were 69.3% of the subjects who had never heard about diabetes. Only 30.4% had heard about diabetes in their life. According to 41.4%, age was not a risk factor for diabetes. 33.5% had no idea about this. The role of genetics in diabetes was known by only 10.4% of the study subjects. There were 48.2% subjects who didn’t think physical activity was necessary to prevent diabetes. There were 38.3% subjects who had no idea about relation between weight and diabetes.

Conclusion: In our study the knowledge about diabetes was poor. There was a very less proportion of population that had an idea about the risk factors and management strategies.

Keywords: Awareness, Diabetes, Management, Screening

INTRODUCTION

A major fast growing and non communicable disease that is a threat to public health is diabetes. Type 2 diabetes mellitus is becoming a global epidemic which causes significant disability, premature death and is responsible for huge medical costs. The number of people affected with diabetes is expected to double by 2030 with significant increase amongst people of Asia. Globally, 70% of type 2 diabetes mellitus have seen to occur in developing countries. 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.

Various studies have reported that there is an increased need for inculcating more awareness about prevention, control, diagnosis and risk factors associated with diabetes. Studies conducted in South India regarding awareness about diabetes have shown that educated and diligent individuals with diabetes mellitus have greater self care and hence longer term control. The chief concern of managing a case of diabetes mellitus is to the various macrovascular and microvascular complications and achieve optimal glycemic control. For this various lifestyle modifications needs to be opted for like regular exercise, healthy and balanced diet and drug therapy. Therefore, health education is an important part of the diabetes management. There is paucity of data in literature on the awareness of people regarding diabetes risk factors, knowledge about lifestyle modification and attitude of people. There were very few studies in literature regarding the awareness of the disease and there was virtually no data on the population as a whole. The present study was conducted with the aim to determine the knowledge, attitude and practice of diabetes amongst rural population.

MATERIAL AND METHODS

The present cross sectional study was conducted by the Department of Medicine, MIMS during a period of 6 months. The subjects who were more than 18 years of age and willing to participate were included in the study. Subjects who were medically compromised and already had diabetes were not included in the study. The study was approved by the Institute’s ethical committee and all the subjects were informed about the study and a written consent was obtained.

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How to cite this article: Mohan Lal Kanojia. Knowledge, attitude and practice of diabetes amongst rural population - an institutional based study. International Journal of Contemporary Medical Research 2017;4(8):1761-1764.
from all.
A total of 1100 subjects were interviewed and made to fill a pretested, predesigned questionnaire. The questionnaire consisted of three parts. In the first part there was information regarding the demographic detail of the subject like age, gender, education level etc. The 2nd part they were tested about the knowledge of diabetes and in the third part attitude of the individuals were tested. All the questions had three options- yes, no, don’t know. Percentage of the answers was established.

**STATISTICAL ANALYSIS**

All the data was arranged in a tabulated form and analysed using SPSS software. Descriptive statistics like mean and percentages were used to interpret the data.

**RESULTS**

Table 1 shows the sociodemographic details of the study population. There were 44.8% (n=493) males and 55.2% (n=607) females who were enrolled in the study. Majority of the subjects were between 25-34 years of age (32.3%). there were only 17.6% subjects (n=194) who were greater than 40 years of age. There were 20.1% subjects between 35-40 years. There were 331 subjects who were less than 24 years of age. Majority of the subjects were married (62.4%). There were 32.6% (n=359) and 4.9% (n=54) who were single and divorced respectively. Majority of the rural people were illiterate (45.7%). There were only 30.1% subjects who were graduates and 24.2% subjects had completed their postgraduation. There were 50.8% (n=559) subjects who belonged to lower class. Only 9.1% subjects belonged to upper class and 40.1% (n=441) subjects belonged to middle class.

Table 2 illustrates the knowledge, attitude and behaviour of the subjects towards diabetes. There were 69.3% of the subjects who had never heard about diabetes. Only 30.4% had heard about diabetes in their life. According to 41.4%, age was not a risk factor for diabetes. 33.5% had no idea about this. The role of genetics in diabetes was known by only 10.4% of the study subjects. There were 54% of the subjects who had no idea about this. Obesity as a risk factor for diabetes was known by only 22.7% of the subjects, 65.5% had no idea about it. 32.4% thought exercise was useful in preventing it. There were 25.6% subjects who did not think exercise to be useful. Diet played a role in causing diabetes was known by only 12.6% of population. 45.6% thought there was no role of diet. Very few had an idea about the signs and symptoms associated with diabetes. Only 32.5% thought increased urination was a symptom. There were 41.5% who thought thirst had nothing related to diabetes. Weight loss as a symptom of diabetes was known by only 34.3% of the population. 40.7% knew that diabetes is associated with high blood sugar. Insulin injection as a mode of treatment was known by 33.2% subjects. 51.1% subjects had no idea that it could be managed by medications also. Only 22.5% knew that regular eye check up was necessary. Diabetes can lead to heart failure and amputation of limb was known by only 10.1% and 8.4% subjects respectively. There was still a portion of population who thought diabetes to be a taboo and didn’t want anyone to know (33.5%). Screening of family members was necessary only for 41.6% of the subjects. There were 48.2% subjects who didn’t think physical activity was necessary to prevent diabetes. There were 38.3% subjects who had no idea about relation between weight and diabetes.

**DISCUSSION**

From the present study we can say that rural people have poor knowledge and attitude towards diabetes. Knowledge, attitude and practice (KAP) with respect to diabetes varies greatly according to socioeconomic status, cultural belief and habits. In our study, there were 44.8% (n=493) males and 55.2% (n=607) females who were enrolled in the study. Majority of the subjects were between 25-34 years of age (32.3%). there were only 17.6% subjects (n=194) who were greater than 40 years of age. There were 20.1% subjects between 35-40 years. There were 331 subjects who were less than 24 years of age. Majority of the subjects were married (62.4%). There were 50.8% (n=559) subjects who belonged to lower class. Only 9.1% subjects belonged to upper class and 40.1% (n=441) subjects belonged to middle class.

**Table-1:** Socio demographic distribution of the study population

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>493</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>607</td>
</tr>
<tr>
<td>Age</td>
<td>&lt;24</td>
<td>331</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>354</td>
</tr>
<tr>
<td></td>
<td>35-40</td>
<td>221</td>
</tr>
<tr>
<td></td>
<td>&gt;40</td>
<td>194</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>359</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>687</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>54</td>
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<tr>
<td>Education</td>
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<td></td>
<td>Graduate</td>
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</tr>
<tr>
<td></td>
<td>Post graduate</td>
<td>266</td>
</tr>
<tr>
<td>Socioeconomic status</td>
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<td>100</td>
</tr>
<tr>
<td></td>
<td>Middle class</td>
<td>441</td>
</tr>
<tr>
<td></td>
<td>Lower class</td>
<td>559</td>
</tr>
</tbody>
</table>

In a study conducted by Shah VN et al, amongst patients diabetic patients of developed and developing countries. In their study, there were 51% of the patients who had knowledge that exercise helped in diabetes control. There were 75% who knew that diet played a crucial role in controlling diabetes and only 7% knew about smoking as a health risk to diabetes. In our study, there was still a portion of population who thought diabetes to be a taboo and didn’t want anyone to know (33.5%). Screening of family members was necessary only for 41.6% of the subjects. There were 48.2% subjects...
who didn’t think physical activity was necessary to prevent diabetes.

In a study conducted by Kassahun CW et al, at south east ethopia, there were 49.5% subjects who thought that diabetes can affect any body part with 49% knowing that it is related to high blood sugar. There were 40.2% who knew that it is incurable. 16 According to a study done at Debre Tabor there were 51.3% participants who knew that it is incurable. There were 43.3% subjects according to whom diabetes mellitus affects all the parts of body. There were 41.2% subjects who thought that condition was because of high sugar in blood. 17

In our study, there were 69.3% of the subjects who had never heard about diabetes. Only 30.4% had heard about diabetes in their life. According to 41.4%, age was not a risk factor for diabetes. 33.5% had no idea about this. The role of genetics in diabetes was known by only 10.4% of the study subjects. There were 54% of the subjects who had no idea about this. Obesity as a risk factor for diabetes was known by only 22.7% of the subjects, 65.5% had no idea about it. 40.7% knew that diabetes is associated with high blood sugar. A survey conducted amongst the rural population of Bangladesh showed that low knowledge is directly related with poor management of diabetes and association with risk factors. 18

We can clearly see that patients with or without diabetes mellitus, who are attending health care centres have poor knowledge and awareness about diabetes. Various steps need to be taken to close the gap that exists between patients and health care providers so that proper and complete education can be provided to the patients. Education is considered to play a key role in management of diabetes but in practicality it remains quite low and very less number of clinicians follows this. We only require counselling patients about diabetes as it will have a direct impact in improving the perception of the disease, dietary and lifestyle changes and hence leading to an improvement in glycemic index in order to prevent the complications related to diabetes.

**CONCLUSION**

In our study the knowledge about diabetes was poor. There was a very less proportion of population that had an idea about the risk factors and management strategies. If this condition...
continues to prevail like this then soon diabetes will become an epidemic. Awareness and screening programmes should be conducted at a large scale to solve this issue.

REFERENCES