

General Awareness of Diabetes Mellitus among a Hospital Population in Chennai: A Survey

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Abstract

Aim and Objective: The aim of this study is to assess the awareness of diabetes mellitus and knowledge about the various aspects of diabetes including types, treatment modalities, preventive measures and lifestyle modification in the patient population visiting a Dental Hospital in Chennai.

Materials and Method: In this study, a questionnaire was prepared and circulated among the subjects to determine the awareness and to inspect the knowledge about the symptoms, diagnosis and preventive measures about Diabetes mellitus among the people. The study sample comprised of totally 100 subjects, both males and females of age group between 20 and 50 years.

Results: According to the survey 52% of the individuals are aware about that diabetes can lead to further complications. 82% of the individuals felt that the diabetes can be controlled by exercise. 19% of individuals have not undergone any confirmatory tests for diabetes. 50% of the individuals were under medication for treatment of diabetes and they experienced side effects while taking those medications. 50% of the individuals who participated in the survey have attended a formal diabetes educational programme and they are aware of diabetes through media, relatives and doctors.

Keywords: Diabetes, Medications, Dietary Habits, Exercise, Blood Glucose level.

Introduction

Diabetes is a group of disease characterised by hyperglycaemia resulting from the defects in insulin secretion, insulin action or both¹. According to recent World Health Organisation (WHO), India today leads the world with over 32 million diabetic patients and the number is projected to increase to 79.4 million by the year 2030². There are two types of diabetes namely Type 1 Diabetes which is due to pancreas which stops producing the hormone insulin and Type 2 Diabetes

which is due to combination of both the pancreas having reduced ability to produce insulin and body being resistant to action of insulin³.

Further researchers have predicted a 65% rise in prevalence of diabetes due to population growth rate, age structure, urbanisation, unfavourably modifications of dietary habits and lifestyles, economic and health transition of the country and thus actual number of diabetes could be as high as 52 million by 2025⁴. And also the type 2 diabetes is seen in early adult life and seen in all age group of Indian populations. So for these reasons WHO declared India as the "Diabetic Capital"⁵. Several studies have been carried out to so as to reveal about the diabetes its complication, medications, diet plans and lifestyle modification for the treatment of it⁶.

Failure to diagnose diabetes mellitus at an early stage due to various factors like insufficient knowledge, lack of public awareness about symptoms of diabetes,

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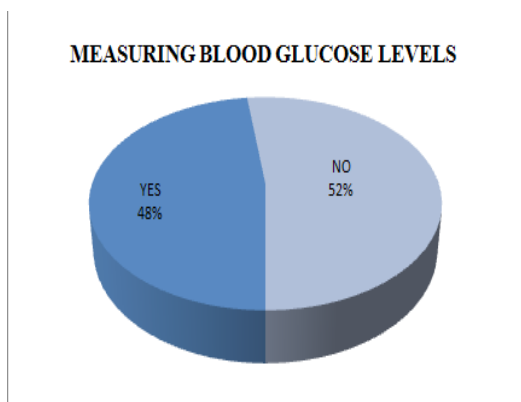
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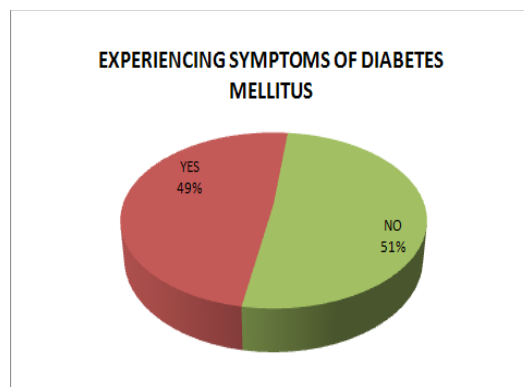
further complication of diabetes and its prevention, short of infrastructure for proper screening camps to identify diabetic screening and identification of high risk individuals are those factors which make diabetes mellitus a common disease ⁷. Many young diabetics who as year's progresses live into their old age where they develop and suffer from chronic morbidity due to complications of diabetes mellitus thus forcing them to lead a life of poor quality. Many studies have identified that main step in tackling diabetes mellitus disease is only through providing knowledge to community regarding the disease, symptoms, complications, positive attitude towards control, prevention and various treatment modalities ⁸. The aim of the present study is to assess the awareness about diabetes mellitus and its causes, treatment modalities, lifestyle modification and preventive measures to improve the knowledge among the population about one of the most prevalent diseases in the country.

Materials and Method

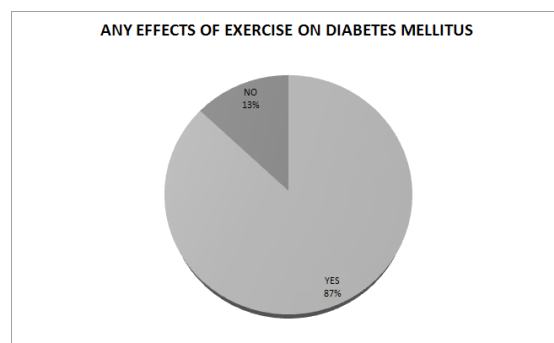
In this study, a questionnaire was formulated which mainly focussed on the general knowledge about awareness and prevention of diabetes mellitus. The sample for the study includes 100 subjects including male and females within the age group of 20 to 50 years. The questionnaire contained information like medications for diabetes, any side effects or type of medications received by them, about their consultancy with physician and at last the general details about the support and general method of control diabetes and awareness. Questionnaire was based on questions which determine the awareness and inspects the knowledge about the symptoms, diagnosis and preventive measures about Diabetes mellitus among the people. The results were tabulated and statistical analysis was done.



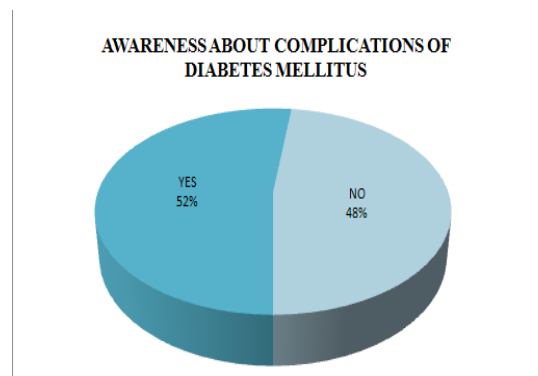
Graph 1: Population experiencing symptoms of diabetes mellitus



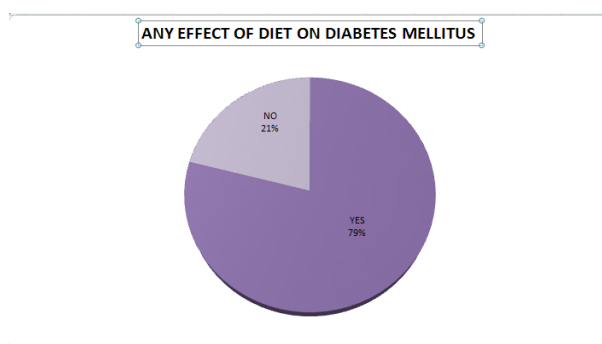
Graph 2: Population measuring blood glucose levels regularly



Graph 3: Population aware of effects of exercise on diabetes

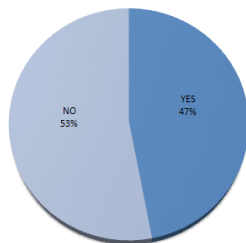


Graph 4: Population having awareness about disease complications



Graph 5: Population consulting a diabetician

CONSULTING A DIABETICIAN



Graph 6: Population aware of dietary effects on diabetes

Results

From the survey, 53% of the individuals who has participated on the survey has visited the diabetes care provider in the last 12 months. 48% of the individuals do not often check their blood glucose levels and they do not have any machine to measure it.

Questions related to risk factors for diabetes revealed that misconceptions were present and worrisome fact is that only 50% of the individuals who were diabetics were aware of the risk factors and further complications.

Awareness about the complications that diabetes can lead to is there among 52% of the populations in which the individuals say that diabetes can lead to respiratory, cardiac problems and some say that it may lead to death.

Individuals were not sure that they had any confirmatory test for diabetes which is around 81% and so they were not able to answer any one of the confirmatory tests for diabetes mellitus.

Many individuals were unaware that diabetes is a disease which has two subtypes. Only 47% of the individuals were able to differentiate two types of diabetes Type 1 and Type 2⁹. Individuals have an argument that they experience changes in result when consulting one or more physician which makes them uncomfortable to discuss about the management of diabetes. This was reported by 48% of the individuals. Patients undergoing treatment for diabetes had an increased familial support for them to do so according to our results.

Discussion

The main aim of this study is to find out about the awareness and prevalence of knowledge in controlling diabetes among the individuals who were participating

in this survey. A study by Deepa Mohan et al found that 75.5% of the individuals in Chennai were aware of diabetes¹⁰. However, the same study had revealed poorer knowledge about the complications of diabetes only 74.2% among diabetics which was similar to the results obtained from our study.

Our survey has only basic questions which tests the knowledge of individuals about the diabetes in questions like types, preventive measures, treatment options etc. Similarly another study was conducted in Singapore by Wee about public awareness on diabetes which showed low scores on general knowledge but good understanding of complications¹¹. This implicates that majority of the patients have not been taught about diabetes by their physicians and the same results were obtained from the survey which was obtained from the study.

In this survey, there is mixed responses for the question regarding the frequent monitoring of blood glucose level. A similar study is done by Kaur and others in Chandigarh where the people are poor in tooth care and infrequent monitoring of blood sugar¹².

Generally, Prevention of diabetes can be done with help of medications and other physical activities. Majority of the people who participated in the survey identified that dietary habits and physical activities can help in a greater extent to control diabetes. The prevention has an impact by reducing both the need for diabetes care and to treat diabetic complications¹³.

In our survey, there is finding that comprehensive programmes, mass media, relatives, doctors can have an large impact as an important step in preventative health service which was similar to study conducted by parks in which he discussed about the social mobilisation and communication in TB control programmes¹⁴.

The results of the study represent only the tip of the iceberg, in depth community based studies has to be undertaken to assess the awareness, about diabetes. Community level awareness programs are to be launched so as to increase the awareness about diabetes.

Conclusion

Awareness about diabetes is insufficient among the population our study and hence a dearth for proper knowledge in prevention and management of diabetes mellitus. This study is done in order to emphasise the need of increasing diabetes awareness activities in form

of campaigns or educational programmes in both urban and rural area of India in order to improve the disease outcome and prevention of the disease.

Conflict of Interest: None

Source of Funding: None

Ethical Clearance: Informed consent for patient was obtained from the patient.

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