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QUESTIONNAIRE BASED STUDY ON COMPLICATIONS AND MORBIDITY OF DIABETES

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ARTICLE INFO	ABSTRACT
<i>Article History:</i> Received 18 th August, 2017 Received in revised form 10 th September, 2017 Accepted 06 th October, 2017 Published online 28 th November, 2017	 Aimand objective: To study the complications and morbidity associated with diabetes patients in Saveetha dental college and hospital. Methodology: A cross sectional survey was carried among 30 diabetic patients using a questionnaire. Questionaire contained 23 questions based on the complications and morbidity of diabetic patients. The data were extracted and analysed. Result: This study shows that 93% of the people knows about the diabetes, 53% of them felt that increased sugar level may leads to cause diabetes mellitus, only 47% of them know about the complications of diabetes, 60% of the people have undergone glucose tolerance test, 43% of the people reported that retinopathy is the major complication in diabetes and another 43% say that they don't know about the major complications of diabetes.33% of them say that diabetes will affect at the age of 50 years.3 0% of them reported that less than 30 years the diabetes in India are very high. More than 43% of the diabetic patients experienced foot ulcer, 73% of them say that untreated diabetes, 77% of them say that the quality of life in the diabetic patients were acceptable. 50% of them reported that current treatment and modalities can acquire a good quality of life in diabetes. Conclusion: With regard to diabetes, India is one of the leading countries. In India people with diabetes complications and morbidity are very high. From the result of this study it was found that most of the people were well aware about the complications and morbidity of diabetes. Only 23% of them reported that their quality of life in diabetes was poor the majority 77% said that their quality of life is acceptable. It reflects the awareness of the public and the well administered medical management of the complication and morbidity meted out by our practitioners.
Key words:	
Air quality index, ambient air quality, Jodhpurcity, Residential area, PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO.	

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INTRODUCTION

In India people with diabetes are more common.In this questionnaire based study we analyse the complications and morbidity of diabetes mellitus.People with diabetes have an increased risk of developing a number of serious health problems. Consistently high blood glucose levels can lead to serious diseases affecting the heart and blood vessels, eyes, kidneys, nerves and teeth. In addition, people with diabetes also have a higher risk of developing infections. In almost all high income countries, diabetes is a leading cause of cardiovascular disease, blindness, kidney failure, and lower limb amputation. Maintaining blood glucose levels, blood pressure, and cholesterol at or close to normal can help delay or prevent diabetes complications.(1)Therefore people with diabetes need regular monitoring. It was estimated that more than 20 million people in the United States had diabetes. Approximately 30% of these people had undiagnosed cases.

**Corresponding author:* Nandakumar E Department of Oralpathology, Saveetha Dental College and Hospitals Chennai-77 Increased risk for diabetes is primarily associated with age, ethnicity, family history of diabetes, smoking, obesity, and physical inactivity. Diabetes-related complications.The significant cause of increased morbidity and mortality among people with diabetes, and result in a heavy economic burden on the US health care system. With advances in treatment for diabetes and its associated complications, people with diabetes are living longer with their condition. (2)

MATERIALS AND METHOD

A cross sectional survey was carried among 30 diabetic patients using a questionnaire. Questionaire contained 23 questions based on the complications and morbidity of diabetic patients. The data were extracted and analysed. Individuality was assured when the subjects filled the survey. The questionnaire was filled in the paper and pen method. After the data collection, statistical measurements are done. The questions included are 1. Have you heard about diabetes mellitus?

A.Yes. B. No

- 2. According to you, What is diabetes mellitus?
- A. Increased sugar levels
- B. Increased blood levels
- C. Don't know
- 3. Are you aware that there are two types of diabetes mellitus?

A.Yes B.No

4. Are you aware of the complications of the diabetes mellitus?

A.Yes. B. No

- 5. If yeswhat are the complications you know of?
- 6. Can medications cure diabetes?
 - A. yesit will cure
 - B. Noit will not cure
 - C. Don't know
- 7. What are the tests available for diabetes?
- 1. Glucose tolerance test
- 2. Fasting plasma glucose test
- 3. Oral glucose tolerance test
- 4. Glycated haemoglobin A.1&2. B.3&4. C.All the above
- 8. What type of diabetes are you diagnosed with?
 - A. Type 1 Diabetes mellitus
 - B. Type 2 diabetes mellitus
 - C. Don't know
- 9. What are the most reported complications in diabetes?
 - A. Neuropathy
 - B. Retinopathy
 - C. Nephropathy
 - D. Don't know
- 10. According to you the diabetes will affect individuals predominantly in which age group?
 - A. More than 50 years
 - B. More than 70 years
 - C. Less than 50 years
 - D. Less than 30 years
 - E. Don't know
- 11. According to you complications and morbidity of the diabetes currently in India are?

A.High. B. Low. C. Don't know

- 12. In diabetic patient foot ulcer is experienced in?
 - A. Less than 10% of subjects
 - B. Greater than 10% of subjects
 - C. Greater than 30% of subjects
 - D. All the above
- 13. Is diabetes mellitus genetic disorder?

A.Yes. B. No. C. Don't know

14. Are obese patients more prone to diabetes?

A.Yes. B. No. C. Don't know

15. Do you know that untreated diabetes can lead to death?

A. Yes. B. No. C. Don't know

- What do you think about quality of life in diabetes?
 A.Very Good. B. Good. C. Acceptable. D.poor
- 17. What is the perception of your life style?

A. Very good. B. Moderate c. Poor

18. According to your perception, how is your physical activity?

A. Good. B. Moderate. C. Poor

19. According to your perception how obese are you?

A.Obese. B. Moderately obese. C.lean. D. Don't know

- 20. Who are more prone to diabetes?
- A. Obese individuals. B. Thin individuals. C. Moderately obese individuals.
- 21. Does smoking and alcoholism lead to diabetes? A.Yes. B. No
- 22. Have you experienced episodes of depression?

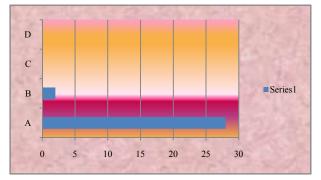
A. Frequently. B. Occasionally. C. One / two instances. D. Never

23. With the current treatment modalities we can acquire a good quality of life with diabetes?

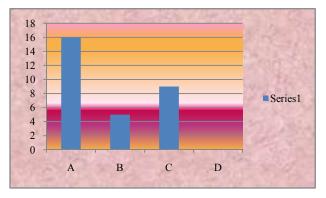
A.Yes. B. No. C. Don't know.

RESULT

Have you heard about diabetes mellitus?



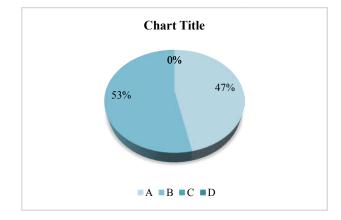
In this figure 93% of them heard about the diabetes mellitus. According to you, What is diabetes mellitus?



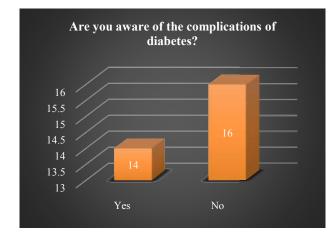
Questionnaire Based Study on Complications and Morbidity of Diabetes

Among the respondents 53% of them says that increase sugar level can leads to cause diabetes mellitus and 30% of them says that increase blood levels can leads to cause diabetes mellitus.

Are you aware that there are two types of diabetes mellitus?



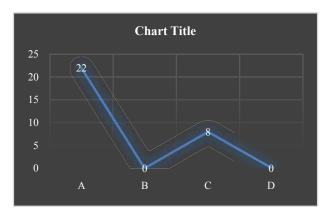
Among the respondents 53% of them aware of types of diabetes mellitus.



Are you aware of the complications of the diabetes mellitus?

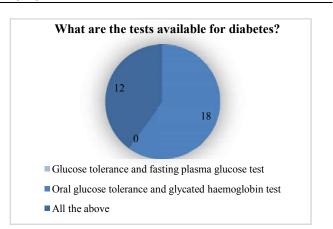
Only 53% of them aware of the complications of diabetes mellitus and remaining 47% of them doesn't know about the complications of diabetes mellitus.

Can medications cure diabetes?



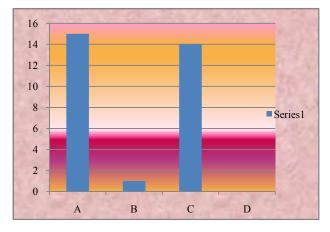
73% of them says that only medications can cure diabetes none of them says that medication will not cure diabetes.

What are the tests available for diabetes?



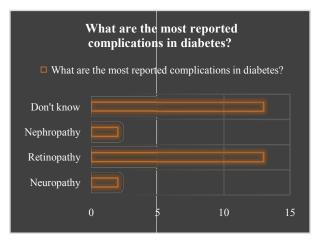
Major 60% of them says that glucose tolerance and fasting plasma glucose test are available for diabetes.

What type of diabetes are you experienced with?



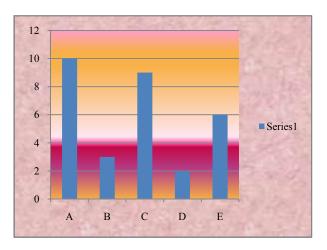
Among the respondents half of the people experienced with type 1 diabetes.

What are the most reported complications in diabetes?



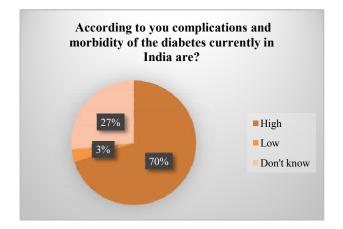
43% of the respondents says that retinopathy is the most reported complications in diabetes.

According to you the diabetes will affect individuals predominantly in which age group?



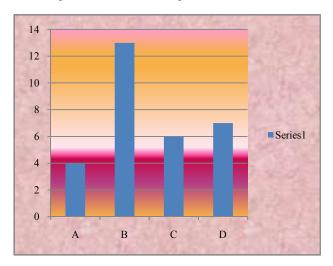
33% of them says that diabetes will affect individuals predominately at more than 50 years.

According to you complications and morbidity of the diabetes currently in India are?



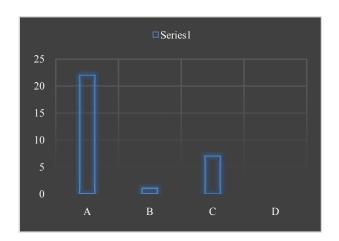
90% of the people says that complications and morbidity in India are currently high.only 10% of them says low.

In diabetic patient foot ulcer is experienced in?



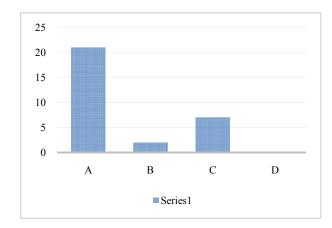
More than 43% of them says that ten %of the diabetic patient experienced foot ulcer

Is diabetes mellitus genetic disorder?



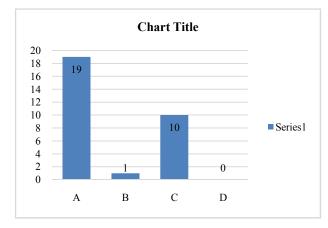
More than 73% tells that diabetes mellitus is an genetic disorderless than 2% says no.

Are obese patients more prone to diabetes?



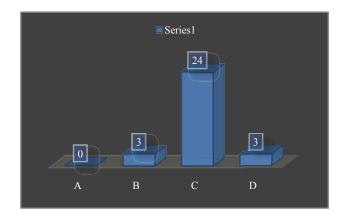
More than 73% of them says that obese patients are more prone to diabetes.

Do you know that untreated diabetes can lead to death?



Only 63% of them says that untreated diabetes can leads to death.

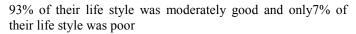
What do you think about quality of life in diabetes?

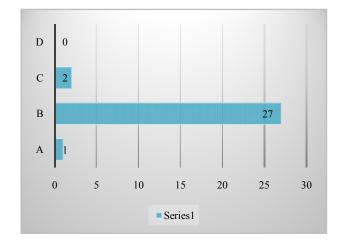


Majority of them says that quality of life in diabetes was acceptable.

93% D

What is the perception of your life style?

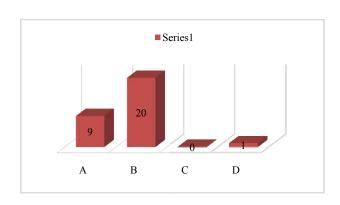




According to your perception, how is your physical activity?

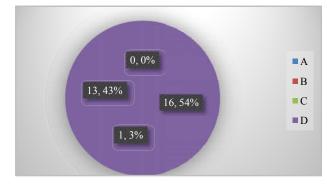
More than 90% of their physical activity was moderate only 3% of their physical activity were good.

According to your perception how obese are you?



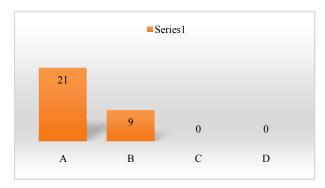
More than 60% of them Are moderately obese and 30% of them are completely obese.

Who are more prone to diabetes?



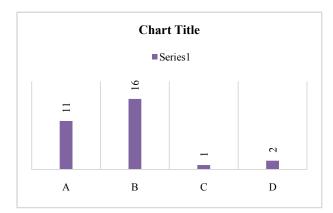
More than half of them says that obese individuals are more prone to diabetes.

Does smoking and alcoholism lead to diabetes?



More than 70% of them says that smoking and alcoholism leads to diabetes.

Have you experienced episodes of depression?



Majority of them experienced episodes of depression occasionally.

With the current treatment modalities we can acquire a good quality of life with diabetes?

Only 50% of them reported that current treatment and modalities can acquire a good quality of life in diabetes.

DISCUSSION

Diabetes mellitus is a group of chronic metabolic conditions, all of which are characterized by elevated blood glucose levels resulting from the body's inability to produce insulin or resistance to insulin action, or both(3).

The awareness related to chronic complications and morbidity of diabetes is relatively high. This study was conducted in single hospital. Similar to the study by Trever J Orchard *et al.* The quality of life is generally perceived to be acceptable(4)

Among the respondents in our study 53% of them says that increase sugar level can leads to cause diabetes mellitus and 30% of them says that increase blood levels can leads to cause diabetes mellitus.60% of them says that glucose tolerance and fasting plasma glucose test are available for diabetes(5).

In our study majority of them knows about the complications of diabetes, although the incidence describes increases in the number of people affected by the disease, the prevalence describes the overall burden of the disease in the population (7,8)93% of their life style was moderately good and only7% of their life style was poor. Majority of them experienced episodes of depression occasionally. More than 90% of their physical activity was moderate, majority of them says that untreated diabetes can leads to death.

In this mainly urban population 80% we observed that 58% of patients with type1 diabetes and only 10% of patients with type 2 diabetes(6), were not followed by the specialist, the average number of visits per year to the physician was 9.6 to 8.3 for type 1 and type 2 diabetes. Moreover 40% of the people with type1 and 20% of people with type 2 diabetes were reported to obtain help from the diabetic care of relatives.(9,10)

CONCLUSION

With regard to diabetes, India is one of the leading countries. In India people with diabetes complications and morbidity are very high. From the result of this study it was found that most of the people were well aware about the complications and morbidity of diabetes. Only 23% of them reported that quality of life in diabetes was poorthe majority 77% said that their quality of life is acceptable. It reflects the awareness of the public and the well administered medical management of the complication and morbidity meted out by our practitioners.

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