

A Survey on Risk Assessment among Diabetic Populations in Guntur Region of Andhra Pradesh on Basis of Different Timings of Diet

Dr. M.Venkateswara Rao^{1*}, Dr. Zaheeda Bano²¹Assistant Professor, Guntur Medical College, Guntur, Andhra Pradesh, India²Head of the Department, Department of Pharmacology, Guntur Medical College, Guntur, A.P, IndiaDOI: [10.36347/sjams.2019.v07i08.013](https://doi.org/10.36347/sjams.2019.v07i08.013)

| Received: 30.07.2019 | Accepted: 06.08.2019 | Published: 17.08.2019

*Corresponding author: Dr. M.Venkateswara Rao

Abstract

Original Research Article

Diabetes mellitus (DM) has evolved as a major public health concern worldwide, as its prevalence is increasing exponentially. Therefore, finding an effective way to identify individuals at risk of developing diabetes is necessary. The objective of this study is to review the problems and risk limitations facing by the existing diabetic population to assess the need for further development in their drug therapy and life style. Obesity and diabetes are major causes of morbidity and mortality as evidences from several studies indicates that these obesity and weight gain are associated with an increased risk of diabetes. There is however considerable new knowledge regarding the etiology of different forms of diabetes as well as more information on different blood glucose values for the complications of diabetes. Along with these, many other factors like age, sex, life style, physical exercise, family history, diabetic education, drug therapy and follow up etc., play a major role in the risks and other limitations in diabetic patients. Predictions, risk assessment and risk profiling are among the various decision support techniques that this survey increasingly rely on to provide early diagnose in patients with elevated risks and to slow down the rapid increase in prevalence of chronic diseases.

Keywords: Diabetes mellitus, Retrospective study, Diabetic education, Obesity.**Copyright © 2019:** This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

The recent studies estimate by the International Diabetes Federation (IDF) showed that the number of adults affected by the disease in 2011 was 366 million which was projected to increase to 552 million by 2030. Nearly 80% of the affected people live in middle- and low-income countries. Type 2 diabetes mellitus, which constitutes more than 95% of all the diabetic populations, has an insidious onset with a long, latent, asymptomatic phase. Among the top 10 countries/territories with the largest number of diabetic adults, five are in Asia. China tops the list with 90.0 million followed by India which has 61.3 million persons affected by diabetes. The numbers are estimated to rise to 129.7 million and 101.2 million, respectively by 2030 [1-3].

Predictions, risk assessment and risk profiling are among the various decision support techniques that this survey increasingly rely on to provide early diagnose in patients with elevated risks and to slow down the rapid increase in prevalence of chronic diseases[4].

MATERIALS AND METHODS

A survey proforma was prepared including the present and past medical history related to diabetes and other diseases, complications, social habits, life style, health education etc [5].

Inclusion Criteria

- Residents of Guntur region who are diabetic and without any bar of age, sex, caste and religion.
- Standard criteria of National Diabetes data group and WHO for DM was adopted as follows: Symptoms of Diabetes + Random blood glucose \geq 200md/dl.

Exclusion Criteria

- Patients outside guntur region.
- Patients with known case of TB, Severe HTN and other malignancies.

Selection of Patients

- Patients with symptoms of Diabetes to their knowledge are selected.
- Patients with frequent morning headaches, increased thirst, dry mouth, decreased appetite, frequent urinations at night are selected.

Subjective Criteria [6-8]

Demographic profile

Data from the patients fulfilling the diagnostic criteria was collected including demographic profile.

Clinical profile

The observations of clinical examination and laboratory investigations were filled in the proforma.

Laboratory Investigations

1. Hematological examinations
2. Cholesterol level
3. Other biochemical and urinary investigations

2 were selected. As the Type 2 patients are 86, the major research regarding the survey focussed on those 86 patients in the 1st step. The following are the various parameters checked in those 86 patients [9-10].

- Body Mass Index (BMI)
- Cholesterol levels
- Irregular Breakfast
- Smoking status
- Physical Exercise
- Work stress
- Diabetic Education
- Diabetic risk

All the given parameters were analyzed and the diabetic population with positive awareness on the same parameters was considered in step 2. The number remained in step 2 with positive awareness on the same parameters are 44.

The pie chart obtained in step 1 regarding diabetic risk assessment is compared with the pie chart in step 2 (Population with positive awareness) regarding diabetic risk assessment.

OBSERVATIONS AND RESULTS

Present survey was conducted in 100 patients with DM. Out of 100 patients, the population with Type

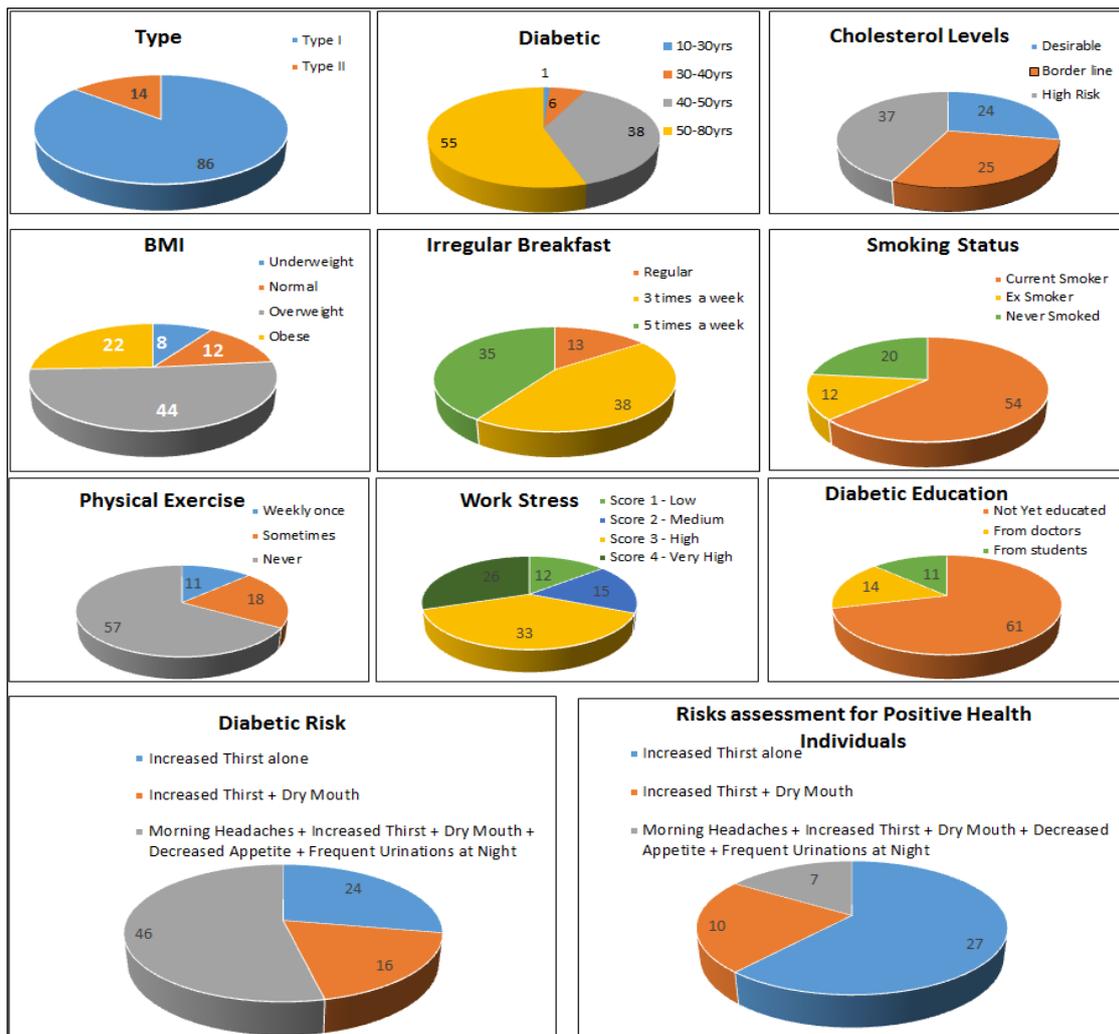


Fig-1: Representation of the survey through pie charts

DISCUSSION

The major observations that were identified are as follows:

Most of the patients are with Type 2 Diabetes and are in the age of 50-80 years. The same patients have high risk of cholesterol, and overweight. They are also irregular in breakfast; never do exercise, current smokers, with heavy work stress and having no sense of diabetic education. The last two pie charts indicate more side effects on the people who have negative practices and less risk for the people who have positive practices.

CONCLUSION

The diabetic risk is more prone to the people who are socially not aware regarding the different parameters mentioned above and the risk is very less to the population those who possess good life style.

You can't do anything about your age or your genetic predisposition. On the other hand, the rest of the factors predisposing to diabetes, such as overweightness, abdominal obesity, sedentary lifestyle, eating habits and smoking, are up to you. Your lifestyle choices can completely prevent diabetes or at least delay its onset until a much greater age. You should also pay attention to your diet: take care to eat plenty of fiber-rich cereal products and vegetables every day. Omit excess hard facts from your diet and favour soft vegetable fats.

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