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Research Article

**PREVALENCE OF DIABETES MELLITUS IN PATIENTS  
PRESENTING IN OUTDOOR DEPARTMENT**<sup>1</sup>Dr. Umer Farooq, <sup>2</sup>Dr. Muhammad Nawaz, <sup>3</sup>Dr. Muhammad Waqas Javaid<sup>1</sup>Rural Health Center Arooti, Toba Tek Singh, <sup>2</sup>Sahiwal Medical College, Sahiwal, <sup>3</sup>Basic Health Unit, Belli Dilawar.**Article Received:** June 2019**Accepted:** July 2019**Published:** August 2019**Abstract:**

*Diabetes is increasing with the passage of time and studies suggest that by the end of 2025, around 75% of the world population would be suffering from diabetes mellitus.*

*Objective: To see the prevalence of diabetes in patients presenting in outdoor.*

*Material and Methods: A total of 110 patients of either gender and of age  $\geq 18$  years were included in this study. Random blood sugar levels of patients were checked.*

*Results: Total of 60 male and 50 female patients were included in this study. The mean age of the patients was  $35.12 \pm 13.42$  years. 84 patients (76.36%) were having blood sugar levels of  $\geq 126$ mg/dl and 26 patients (23.63%) were having blood sugar levels of  $\leq 126$ mg/dl.*

*Conclusion: High prevalence of diabetes was seen in patients presenting in the outdoor department.*

**Keywords:** *Diabetes mellitus, random blood sugar, outdoor.*

**Corresponding author:****Dr. Umer Farooq,**

Rural Health Center Arooti, Toba Tek Singh.

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**INTRODUCTION:**

Diabetes mellitus is characterized by the increased blood sugar level for a longer period of time. In outdoor department, patients of the diabetes may present with increased thirst or hunger, increased urination and some of the patients might be asymptomatic. Most of the patients are diagnosed with diabetes on routine investigation.

According to the latest guidelines, it is divided into four major groups i.e. type-I diabetes, type-II diabetes, gestational diabetes and diabetes of other specific types [1,2]. It is important to diagnose and treat diabetes at the earliest in order to avoid certain complications that lead to increased ratio of mortality and morbidity. These complications include acute complications such as hyperosmolar hyperglycemia or diabetic ketoacidosis and chronic complications include damage to the eyes, stroke, foot ulcers, cardiovascular diseases and certain kidney diseases [3,4].

According to the WHO, prevalence of diabetes among the developing countries, will be raised by 170% i.e. 75% of the persons by year 2025 [5] i.e. that is three out of four persons will suffer from diabetes. This create an alarming situation compelling us to make necessary steps to avoid this. This is the need of hour to diagnose and treat this disease at the earliest in symptomatic as well as asymptomatic patients [6].

The purpose of this study is to determine the prevalence of diabetes in patients that present in the outdoor department. The rationale of this study is to see the proportion of the patients that are asymptomatic i.e. don't have any symptoms of diabetes, yet they have increased blood sugar levels. The type of study will help the clinicians treating and managing this chronic disease at the earliest and enable them to prevent its acute and chronic complications.

**MATERIAL AND METHODS:**

This cross-sectional study was conducted in the outdoor department of Rural Health Centre Arooti. Informed consent of the patients was taken. One hundred ten patients including male and females and age  $\geq 18$  years through non-probability convenience sampling. Every patient presenting the outdoor was included irrespective of typical diabetic symptoms i.e. increased urination, increased thirst or hunger. We excluded pregnant and lactating females and the patients who were already diagnosed with diabetes. Patients having blood sugar levels of  $\geq 126$ mg/dl were labeled as diabetes. The data was entered and analyzed

using SPSS Ver. 23.0. The qualitative variables were presented as frequencies and percentages while the quantitative variables were presented as mean and standard deviation.

**RESULTS:**

There were 60 male (54.55%) and 50 female (45.45%) patients that were included in this study. The mean age of the patients was  $35.12 \pm 13.42$  years, mean age of the male patients was  $37.65 \pm 15.23$  years and mean age of the female patients was  $37.18 \pm 12.39$  years. Out of 110 patients, 87 patients (79.10%) presented with specific symptoms of diabetes and 13 patients (11.80%) were not having any diabetic symptoms. Out of 110 patients, 84 patients (76.36%) were having blood sugar levels of  $\geq 126$ mg/dl and 26 patients (23.63%) were having blood sugar levels of  $\leq 126$ mg/dl. The mean blood sugar level of the patients was  $143.12 \pm 20.12$  mg/dl. Mean blood sugar in female patients was  $143.23 \pm 17.84$  mg/dl and mean blood sugar in male patients was  $149.23 \pm 21.45$  mg/dl. Out of 110, 12 patients (10.90%) were having positive family history for diabetes mellitus.

**DISCUSSION:**

In this study, we noticed a high prevalence of diabetes mellitus in outdoor patients. We included patients that presented with either symptoms. The high prevalence of diabetic patients in our study indicates an alarming situation. Some of the reasons for this high prevalence might be that we also included patients who presented with typical symptoms of diabetes and that they were not taking any specific medicines.

In our study it was also seen that 13 patients (11.80%) were not having diabetic symptoms and that 26 patients (23.63%) were having sugar level of  $\leq 126$ mg/dl and labelled as non-diabetics. This difference indicates that patients may or might not have diabetic symptoms despite having diabetes and vice versa. Another reason of this difference might be that we performed this study on basis of random sugar levels. So, there is a possibility that the patient had taken any food, sweet things before drawing of the blood.

According to the literature, in Pakistan due to increasing urbanization and industrialization, lifestyle of the people has changed dramatically leading to changed dietary habits and sedentary routine. Studies suggest certain complications which happen due to sedentary lifestyle i.e. microvascular and macrovascular complications and that proper education about physical activities and dietary modifications is a must in order to minimize the risk of diabetes [3,4,7,8].

There were few limitations in this study i.e. smaller sample size, including patients having diabetic symptoms and that the blood sugar level was checked randomly. A study with larger number of patients and observing the sugar level at fasting might overcome these limitations.

### CONCLUSION:

We have seen a high prevalence of diabetic patients, presenting or not presenting with diabetic symptoms i.e. increased thirst, hunger and urination. There should be extensive studies with larger number of patients and observing the sugar level at fasting in order to get better results.

### CONTRIBUTION OF AUTHORS:

Dr. Umer Farooq: Data Collection, writing limitations and conclusion section

Dr. Muhammad Nawaz: Writing the introduction and Methodology section

Dr. Muhammad Waqas Javaid: Writing the results and discussion section

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