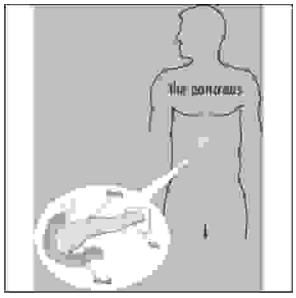
ORIGINAL PROF-1265

# DIABETES MELLITUS;

## AWARENESS AMONG INDIVIDUALS ATTENDING OUT PATIENT DEPARTMENT OF GHURKI TRUST TEACHING HOSPITAL.

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**ABSTRACT...Objective:** To assess the awareness of diabetes in individuals attending Out Patient Department of Ghurki Trust Teaching Hospital. **Design:** Descriptive study design. **Place of Study:** Out Patients Department, Ghurki Teaching Hospital, Lahore. **Methodology:** The study was conducted among a sample of 50 individuals, recruited by convenience sampling technique. Data was collected, by administering a structured questionnaire, during a two week period in December 2006. Data was presented in the form of tables and graphs. **Results:** General Awareness of Diabetes Mellitus in the participants of our study was poor. Only 16% recognized it as a disease of the pancreas while 50% considered it to be a disease of other systems. Majority of the respondents (78%) had no idea about the types of the disease. When asked about the communicability of diabetes, 76% considered it to be non-communicable, 10% thought it to be communicable. Among the respondents, 78% thought diabetes is inheritable. When asked about its prevention, 54% considered avoiding sugar as the best way to prevent diabetes, while only 9% believed weight reduction to be important. Regarding the management of diabetes, 40% of respondents considered medication, 27% thought of diet modification as a better way, 18% considered exercise, while only 6% named weight reduction. **Conclusion:** The participants of the present study lacked awareness of types of diabetes, its mode of inheritance, its prevention and management.

**Key words:** Awareness, Knowledge, Management, Diabetes Mellitus

## INTRODUCTION

Diabetes is a disease marked by high levels of blood glucose resulting from a defect in insulin production, insulin action or both, that can lead to macro and micro vascular complications like neuropathy, retinopathy, nephropathy, cardiovascular complications, pregnancy related complications and early death[1,2]. Diabetes is a chronic, life threatening condition that depends on medication, diet and life style modification to prevent long term complications. There are 3 types of Diabetes[1]. Type-1, also called insulin dependant or juvenile diabetes mellitus, characterized by loss of insulin producing Beta-

cells. Type-2 also referred to as maturity onset diabetes mellitus, can be due to a defect in insulin secretion and/or a reduced sensitivity to insulin. Patients with maturity-onset diabetes of the young (MODY) have an impaired secretion of insulin, with either minimal or no defect in the action of insulin[24]. The third type is Gestational diabetes which occurs during pregnancy[1].

Diabetes is an important public health disorder for many reasons: The disease is not only a problem for the individual but is also considered to have a major social impact on the society as well because of its complications, seriousness and cost[1]. It is estimated that more than 180 million people worldwide have diabetes. This number is likely to be more than double by 2030. In 2005, an estimated 1.1 million people died from diabetes. Almost 80% of the deaths occur in low and middle-income countries with half of the deaths occurring in people under the age of 70 years. WHO projects that deaths due to diabetes will increase by more than 50% in the next 10 years without appropriate measures. Most notably, deaths due to diabetes are projected to increase by over 80% in upper-middle income countries between 2006 and 2015[1]. In another estimate by International Diabetes Federation an estimated 200 million people around world have diabetes and by 2025 it is expected to increase to 333 million[3].

In developing countries the number of people with diabetes will increase by 150% in the next 25 years, and the increase in incidence of diabetes follows the trend of urbanization and life style changes[4]. With an overall prevalence of over 10% among the adult population of Pakistan, type 2 diabetes has become a serious health problem for the nation[5,24]. In 1995, The Pakistan Diabetes Survey, in collaboration with the World Health Organization (WHO)[23], noted that the prevalence of diabetes among adults was 16% with a further 9% having impaired glucose tolerance. Pakistan is in the world's top 10 in terms of highest number of people with diabetes. Currently an estimated 6.5 million people aged 25 years and above are affected with diabetes in the country and, if no interventional strategies are adopted, the World Health Organization forecasts that the number will rise to 14.5 million by the year 2025[6]. Risk factors for diabetes include smoking, elevated cholesterol levels, sedentary life style, family history[7], and obesity[1]. Many drugs can also impair insulin secretion. These drugs may not, by themselves, cause diabetes but they may precipitate diabetes in individuals with insulin resistance[8]. Examples include nicotinic acid and glucocorticoids[9]. In Pakistan the major risk factors identified were age, positive family history and obesity especially central obesity[10].

The problems associated with diabetes are increasing. Effective preventive strategies already exist, but are not being rationally or widely utilized. The individual with diabetes makes most of his or her decisions concerning the disease outside the clinical setting, either at home, on the job, or with their existing community[4]. Pakistan despite increased prevalence of diabetes mellitus and its associated high morbidity and mortality significantly lacks awareness about the proper management and treatment in patients[11,12,13]. This lack of awareness may be the underlying factor affecting attitudes and practices towards its care.

Education on diabetes is important as improvements in knowledge, and skill, will lead to better control of the disease[14,15]. It is important to note, to be effective, programs concerned with increasing awareness against diabetes must be tailored to the local culture and belief of the people[16,17]. Pakistan currently lacks structured education and information programmes regarding diabetes, both for people at risk of the disease and for people suffering from it. So far, little has been done to assess the level of current knowledge and behavior of people with diabetes, or to evaluate their educational needs. This study attempts to assess the general awareness of diabetes in patients attending Gurki trust teaching hospital as it influences the management of Diabetes Mellitus at individual as well as community level.

## OBJECTIVE

To assess the awareness of various aspects of diabetes in patients attending Out Patient Department at Gurki Trust Teaching Hospital.

## METHODOLOGY

The study was conducted among a sample of 50 individuals, using a convenience sampling technique.

Data was collected, using a structured questionnaire, during a two week period in December 2006. Data was presented in the form of tables and graphs.

## RESULTS

The data revealed that 39 respondents (78%) did not know about the various types of diabetes. Only 3 patients (6%) answered that diabetes was of many types while 8 of them (16%) thought it was of two types. While assessing the awareness among respondents about the non-communicability of diabetes, it was noted that 38 respondents (76%) knew diabetes to be a non-communicable disease. Five respondents (10%) thought of diabetes as being a communicable disease. Thirty nine percent of respondents (78%) knew about the hereditary nature of diabetes, while 5 of them (10%) were unaware of the fact that diabetes is inherited. Among the respondents, 16 respondents (32%), thought of diabetes as a disease of blood, only 8 patients (16%) knew it to be a disease of the pancreas, while 17 of them (34%) had no idea about what it was.

### Awareness about the management of Diabetes

About 20 respondents (40%) knew that diabetes could be controlled by medication, 14 of them (28%) thought of dietary modification as being important, while only 3 patients (6%), believed that weight loss was important in the management of diabetes (Figure 1).

**Fig-1. Awareness about the management of Diabetes among 50 patients attending OPD at Gurki Hospital**

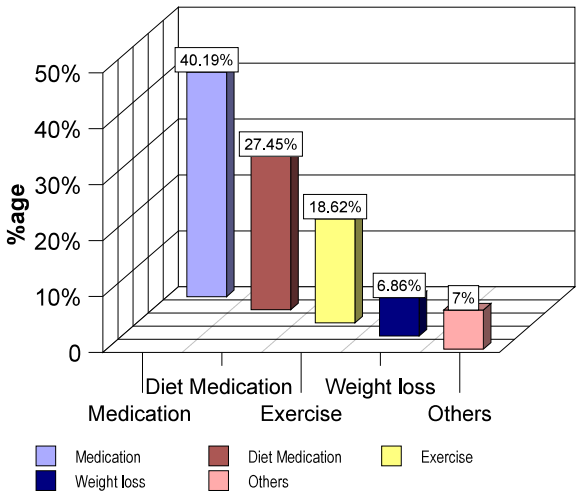


Figure 2 shows that the majority of respondents (55%) believed avoiding sugar was important in the prevention of diabetes. Only 9 % believed weight reduction was important.

**Fig-2. Diabetes Prevention among 50 patients attending OPD at Gurki Hospital**


## DISCUSSION

General awareness of diabetes mellitus in the participants of the present study was poor. Only 16% knew that it is a disease of the pancreas while 50% considered it to be a disease of other system(s). This is consistent with a similar study conducted by Sivagnanam, in 2002[22], which showed almost the same results. At the same time it is quite inconsistent with another study, done in Singapore which showed that 60% of people had correct knowledge about the origin of the disease[18].

A small number of respondents in the present study (12%) knew about the types of diabetes. This result is comparable to a similar study done in Pakistan, where only 14% of participants had a good knowledge of diabetes[12].

In this study concept of non communicability of diabetes was inquired, and it was noted that 76% of respondents considered it to be non-communicable, while 10% thought it to be communicable, which was consistent with

a study in Singapore[18], which showed that 72 % people considered it to be non-communicable, while 9% thought it to be communicable. Diabetes has a genetic component, and it is noteworthy that 78% of the participants thought diabetes is inheritable. Our study showed that 54% of the respondents considered avoiding sugar as the best way to prevent diabetes, while only 9% believed weight reduction to be important. There is clear evidence that we can prevent most of the diabetic complications by improving diabetes management[19] Control of these complications is possible and can lead to reduction in morbidity and health care cost. Diabetes can be prevented by increasing awareness, treatment and preventing complications. This however, is dependent on proper understanding of the disease by patients as patient compliance is an important component in the management of diabetes and compliance can be increased by increasing awareness of the disease among patients[14,15,20]. In our study, 99% people considered it to be a manageable disease, 40% considered medication for its management, 27% thought of diet modification as a better way, 18% people considered exercise, while only 6% thought that weight reduction can be of some help in managing diabetes. This differs from the study done by Shrestha, in 2005[21], which showed that a majority of the respondents knew that diabetes can be managed in all these ways effectively, but felt that weight reduction and exercise were the most important components in diabetes management.

## CONCLUSION

The participants of the present study were seen to lack awareness of diabetes, especially about its types, mode of acquiring, prevention and management.

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# PATIENCE IS BITTER BUT ITS FRUIT IS SWEET

Unknown