

**STUDY TO MONITOR DAILY LIFESTYLE OF DIABETIC PATIENTS BASED ON
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ABSTRACT

Objectives: To assess the knowledge and Practices for healthy lifestyle among diabetics in Multan, Pakistan. **Study Design:** Observational cross-sectional study. **Place and Duration of Study:** This study was conducted at the Out-patient Departments (OPD), Nishtar Hospital Multan, Pakistan from October, 2021 to November, 2021. **Materials and Methods:** SPSS 21 was used for data interpretation, percentages, frequencies were calculated and table was formed. Sample of 100 diabetic patients was taken. Sample was selected by convenient non-probability method of sampling. People of age group 20 to 75 years having history of diagnosed diabetes for at least 2 years were selected. **Results:** The results of present study revealed that diabetes is most prevalent in age group of 40-60 years (54%). Health practices were found to be good in those who attended university (88.88%) as compared to those who never went to school. Disease was distributed in respondents of upper economic class 0 of respondents). Males had better knowledge (63%) than females (37%). 58% people who had disease were those with Positive family history. 57% of people believed that diabetics should take multiple small meals instead of few large ones. 67% of respondents believed that all underground vegetables are prohibited for diabetics and 50% believed that fish is best type of meat for their health. 83% of the sample believed that vegetable oil as best kind of fat. 93% believed that regular talk is important for disease control and 70% believed that foot care is necessary in diabetics. Only 35% people believed had adequate knowledge about HbA1c. 45% people believed that diet drinks be consumed as much as wanted. **Conclusion:** Our study sample it is concluded that overall community awareness about disease duration, Complications and preventive measures of diabetes mellitus is satisfactory. Well educated diabetic patients have good knowledge about disease regular checkup. Complications and preventive measures (for example; regular walk) than less or uneducated patients. Males have good knowledge than females, but overall knowledge about diet schedule, medication and timings of test was not satisfactory. Care about feet was not practiced. Males were affected more; especially good socioeconomic status at age 40-60 years. Health practices were not found to be up to the mark. So, appropriate education about dietary control, life style, regular checkups and proper use of medicines should be given to control the disease.

KEYWORDS: Knowledge; Practices; Healthy Lifestyle; diabetics.**INTRODUCTION**

Diabetes, mellitus has become a major chronic disease globally. WHO (2007), estimated that 30 million people worldwide had diabetes in 1985 and this estimation increased to 135 million a decade later.^[1] WHO also estimated that the number of people with diabetes, worldwide. in 2000 was 11 million and it is likely to be more than double by the year 2030, While in Malaysia diabetes was ranked at the number six top killers among the other non-communicable diseases in year 2005.^[2] There are two main types of diabetes which is insulin dependent diabetes mellitus (Type 1 DM) and non-insulin dependent diabetes mellitus (Type 2 DM). Other types include gestational and drug induced diabetes mellitus. However, type 2 DM is the most common type

of diabetes and usually seen in people over 35 years of age.^[3] Those who are at high risk of getting type 2 DM are people who are obese. Practice unhealthy dietary habits, middle aged or elderly ones, people who have a family history of type.

DM, those who are physically inactive, or females have history of Gestational diabetes during pregnancy. Apparently, those factors are all modifiable. On the other hand the well-educated individuals with a good attitude, who always practice a healthy lifestyle, healthy- diet and exercise regularly, have reduced possibility of being inflicted with diabetes disease.^[4] Furthermore, people with prolonged diabetes are at high risk to develop long term health complications such as heart attacks, strokes,

kidney failure, blindness, amputations and etc.^[5] Thus, it is vital to reduce the mortality associated with the complications of diabetes mellitus as early as possible. This might avoid from sustaining its long term treatment cost which is very costly and indirectly would cause the government to spend more money to solve it.

The studies have identified the factors related to the increase of DM among the people in particular study areas. As a result, it brings much better understanding of the importance of primary prevention and control of diabetes in the community. It is however very difficult to change peoples' behavior and attitudes towards diabetes as it requires well-structured diabetes program to educate every individual, especially those who have diabetes.

Moreover, it is a question whether the information regarding diabetes disease is accessible to those who live in rural areas, as that most of the health services are centered in capital. Those people are, the high-risk population. Mainly, they are a group of people NA, who have low educational level with low income, unemployed, practice unhealthy lifestyle and have less accessibility to information.^[6] Therefore, it is crucial to do a study on the knowledge, attitude and practice of diabetes among the villagers who have diabetes in that particular-area.

DM is a challenging issue in all over the world. If proper planning and its prevention not take place in Pakistan, epidemic of diabetes will be fatal. There is a need of time to implement primary prevention, early diagnosis, and start educational program for its prevention, preventive programs will be beneficial as to target general population rather than diseased or high-risk population.^[7]

Obesity and physical inactivity are modifiable risk factors of type 2 diabetes, proved by many studies. If we detect risk factors of disease earlier disease can be prevented and disease onset can be delayed. Knowledge of the disease plays a major role in early prevention, detection and future development of disease.

MATERIALS AND METHODS

An observational (descriptive) cross sectional study was carried out at outpatient departments (OPD), Nishtar Hospital Multan, Pakistan from October, 2021 to November, 2021. Sample of 100 diabetic patients in OPD of Allied Hospital was taken. Sample was selected by convenient non-probability method of sampling. People of age group 20 to 75 years having history of diagnosed diabetes for at least 2 years were selected.

The data from a questionnaire was translated back to English and analyzed by SPSS 21. The frequency distribution tables were made. Frequency of good knowledge and poor knowledge was found among different demographic variables i.e. gender, Economic status and education.

RESULTS

The results of present study revealed that out of sample of hundred people conducted disease was most prevalent in age group of 40-60 years (54 %). Moreover 63% of affected respondents were males with distribution of disease not apparently affected by the level of education although people with no schooling or schooling up to 5th grade were generally more affected, 26% and 23% respectively. Health practices were found to be good in these who attended university (88.88%) as compared to those who never went to school (85.18%). Disease was distributed in people of upper economic class (56% of respondents) and only 3% prevalence in low economic class people.

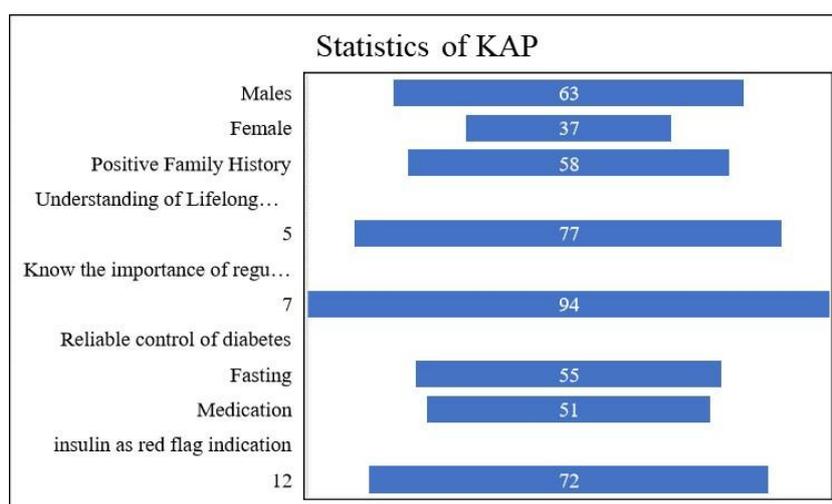
Table 01: Gender Distribution.

Gender	Qty	%age
Male	63	63%
Female	37	37%
Total	100	100%

Males had good knowledge (63%) than females (37%). 58% people who had disease were those with positive family history. 77% people understood diabetes is a lifelong chronic disorder and 94 % people believed that regular blood glucose monitoring is important for disease control. 55% people considered fasting as the reliable time of blood glucose monitoring and 51% people considered oral medication as best mode of medication for their health. 72% people believed that insulin a red flag indicating that the disease is in the last stage. 47 % of people believed that three meals should be taken by a diabetic per day and 57% of people believed that portion of meal should be small. 67% of people believe that all underground vegetables are prohibited for diabetics and 47% believed that only 1 type of fruit should be taken by a diabetic per day. 50% of people believed that fish is best type of meat for their health and 83% believed that vegetable oil is best kind of fat. 93% believed that regular walk is important for disease control and 70% believed that foot care is necessary in diabetics. None of the respondent believed that persistent high sugar levels can affect wart, kidney and eyes all three organs. Only 35% people believed that HbA1c should be monitored three times per year and a significant number of people; about 4%; did not know about HbA1c test. 2% people believed that fresh juices can be consumed by diabetics as much as they want and 15% believed that diet drinks could be consumed as much as wanted, only 1 % people believed that all types of juices and drinks are prohibited for diabetics.

Table 02: Different Statistics of KAP About Diabetic Patients.

Statistics	Qty	%age
Knowledge About Diabetes		
Males	63	63%
Female	37	37%
Positive Family History	58	58%
Understanding of Lifelong Chronic Disorder		
	77	77%
Know the Importance of Regular Blood Glucose Monitoring		
	94	94%
Reliable Control of Diabetes		
Fasting	55	55%
Medication	51	51%
Insulin as Red Flag Indication		
	72	72%



DISCUSSION

The scientific knowledge of diabetes mellitus is a vital source for guidance and education of diabetic patients regarding their self-care. Self-care includes proper intake of diet, physical exercise, regular monitoring of BSR and taking medication either oral or insulin.^[8] Many studies regarding relationship between information and self-care practices in newly diagnosed diabetic people. Many studies are present that involved the general peoples and type 2 diabetic patients.

Many Researches available that involved type 2 diabetic patients having the disease since many years as well as covered general population. This study was conducted to see the relationships between knowledge and self-care practices among newly diagnosed type 2 diabetics at different hospitals.^[9,10,11]

Insulin is recommended in late stage of disease 72% believed that however they were not known about the fact that it was because of a specific diabetic type like juvenile diabetes they were advised to use insulin. Insulin use can prevent from complications 81% people believed that. Only 25% people aware from that,

diabetics patients should take 5 small meals rather than 3 large meals, only 10% practiced this routine. A large proportion (70%) people believed that all types of vegetables can be consumed by diabetics which contrasts with medical reality and depend upon glycemic index. It was encouraging to know that 50% of respondents considered fish as the best variety of meat as compared to mutton beef and chicken. 93% people are very aware about the significance of regular walk for control of disease but the myth that fresh juices and diet drinks do no harm to a diabetic body was heart-rending.

In this study majority of people (66%) having basic and (78%) having technical information about diabetes mellitus. A study conducted in Singapore to see the level of information about diabetes results shows respondents had satisfactory level of information about diabetes. Another study that was conducted in Oman shows that level of knowledge about DM was adequate.^[12,13] A study was conducted in Aga Khan Hospital Karachi showed that 12 % people had knowledge of symptoms, 35% had treatments knowledge and 53% of patients had knowledge of complications of diabetes. (90%) of this study's respondents did not check their BSR regularly. Blood glucose level monitoring increases with the

knowledge of patients. The diabetic patients in this study showed results of self-monitoring unlike to that study from Singapore.^[14,15]

Other findings showed that people with good knowledge did physical exercise and exercising rate increasing with levels of knowledge. A study in Peshawar, showed that 75% of people had DM from nine years did exercise for the control of Blood glucose.^[16] In our study many respondents did not take of their feet regularly. Only 16% of patients in this study did not smoke. Similar results were found in all groups and the relationship was significant in basic and technical knowledge groups.^[17,18] Diet plays a vital role in management and prevention of Diabetes. Majority (90%) of people did not follow the dietary advice by consultants.^[19]

In this study it was found that most of less educated diabetics believed that diet drinks and fresh juices could be taken as much as wanted. Similar results were found in previous studies Conducted in the developing countries with poor awareness. This myth was not found in developed countries like United States of America.

This study revealed the fact that respondents had average knowledge of diabetes but not having appropriate self-care. Most of the people in this study had positive family history of diabetes. Diabetic family member shares their knowledge and experience with non-diabetic people and newly diagnosed cases.^[20,21,22] secondly respondents did not attend any education programs. The lack of time, ignorance may be the reason for that.^[23,24] The results of this study encourage a Positive Outlook: appropriate education about dietary control, life style, regular checkups and use of medicines should be given to control the cease.^[25,26,27,28]

CONCLUSION

Our study sample it is concluded that overall community awareness about disease duration, complications and preventive measures of diabetes mellitus is satisfactory. Well educated diabetic patients have good knowledge about disease regular checkup, complications and preventive measures (for example; regular walk) than less or uneducated patients. Males have better knowledge and females. But knowledge about diet schedule, medication and timings of testing blood sugar level as not satisfactory. Care about feet was not practiced. Therefore, appropriate education about dietary control, life style, regular checkups and use of medicines should be given to control the cease.

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