



## Assessment of Knowledge And Practice of Patients With Diabetes Mellitus

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### ABSTRACT

*The present study was intended to assess the knowledge and practice of patients with Diabetes Mellitus. approach is used in this study. A total of 50 diabetic patients in the age group of 20 to 60 years were selected from the hospital by purposive sampling technique. Researcher collected the data by using knowledge questionnaire and practice checklist to assess the knowledge on Diabetes Mellitus and practice usage of glucometer in Diabetic patients. Data were analyzed by using appropriate statistics. From the present study it is clear that 78% had very good knowledge and 22% had good knowledge and 42% of the study subjects have good practice level on Glucometer usage and 58% have average practice level on glucometer. While assessing it is found that there is no significant association between knowledge and practice of diabetic patients with selected demographic variables.*

**KEYWORDS :** knowledge, practice, glucometer

**INTRODUCTION:** Diabetes Mellitus is a group of metabolic disease characterized by hyperglycemia resulting from defect in insulin secretion, insulin action or both the basis of the abnormalities in carbohydrates, protein, and fat metabolism. Diabetes Mellitus needs to be treated by a holistic approach through dietary management, exercise, education and self-care measures. According to the WHO report, India today heads the world with over 32 million diabetic patients and this number is projected to increase to 79.4 million by the year 2030. The prevalence of diabetes is rapidly rising all over the world, especially in India because of the changes in lifestyle, eating habits, lack of exercise and increasing mental tension. The impact of urbanization and globalization has led to a rapid change in lifestyle by way of decreased physical activity and increased consumption of convenience foods which are easy to cook and eat but are high in fat and refined carbohydrates and low in fibre. This makes Indians more prone to diabetes. Currently, more than 70% of people with diabetes live in low and middle income countries. Among the 20% of the current diabetic population resides in the south East Asia region. The number of diabetic persons in the countries of the region which is likely to grow triple by the year 2015.

Diabetes self management in the corner stone of controlling diabetes and preventing diabetes complications. If inadequately treated develop multiple chronic complications leading to irreversible disability and death. Diabetes can be effectively controlled and complications can be prevented by self care like diet, exercise, medication, self monitoring of blood glucose level food and skin care. The client who is knowledgeable about his or her condition and treatment can practice the instruction given to prevent further complications. In order to carry out these functions client must be thoroughly instructed in self care management and their knowledge and practice should be checked periodically. Prevention of diabetes still lies in the future, and until then, tens of millions will continue to suffer from the disease. Every effort must be made to cure as many as possible, or failing that, to alleviate the associated disabilities and to prevent premature death so that the diabetic can play a productive and fulfilling role in society. The development of simple methods for measuring glucose and estimating glycated hemoglobin offers new opportunities for diagnosing the disease, closely linked with the application of the knowledge and skills necessary for its management and supervision.

The problem of diabetes in today's scenario is enhanced when there is adaptation of wrong lifestyle in day to day life. Life style is the way you live your life, what you eat, how and when you eat, how much you exercise, how you cope up with stress full situations. It is the need of hour because the biggest killer in the world today accounting for almost 80% deaths worldwide is not war, disease, natural calamities or accidents. The biggest killer is life style.

### OBJECTIVES OF THE STUDY

#### Objectives are to:

- assess the knowledge of patients with Diabetes Mellitus.
- assess the practice of using Glucometer in patients with Diabetes Mellitus.
- assess the effectiveness of selected interventional strategies on knowledge of patients with Diabetes Mellitus.
- assess the effectiveness of selected interventional strategy on practice of patients with Diabetes Mellitus.
- find out the association between the knowledge of patients with Diabetes Mellitus and selected demographic variables.
- find out the association between practice of using Glucometer in patients with Diabetes Mellitus and selected demographic variables.

### METHODOLOGY

**Setting of the study:** St. Joseph's hospital, kothamangalam

**Research approach:** A quantitative approach

**Research design:** Pre-experimental one group pre test –post test research design

**Sample: 50**

**Sampling technique:** Purposive sampling

**Data collection instrument** –Structured knowledge questionnaire and observation checklist for self monitoring of blood glucose level.

### DATA COLLECTION

The study was conducted after the approval of ethics committee and permission from the concerned authorities was obtained. Data was collected during the period between 12/01/2015 to 12/02/2015 with 50 sample selected by using a purposive sampling technique. After introducing about self and purpose of the study, written consent was obtained assuring maximum anonymity and confidentiality. Pre –test was conducted to assess the knowledge of diabetes patients regarding diabetes mellitus and observation checklist for the self monitoring of blood glucose using a glucometer was administered to determine the knowledge and practice of diabetic patients.

The planned teaching programme was conducted on the sameday about

1 hour using power point and also demonstration of self monitoring of blood glucose using a Glucometer. The post –test to assess the effect of planned teaching programme and individual demonstration of self monitoring of blood glucose using a glucometer was conducted

using the same tool on 7<sup>th</sup> day. At the end respondents were thanked for their co-operation the investigator did not have any problems during the data collection process.

**DATA ANALYSIS**

**Organization of Study Findings**

The data were analysed, interpreted and organized under the following headings

Section A: Distribution of subjects according to socio demographic variables

Section B: Assessment of knowledge of Diabetic patients regarding Diabetes Mellitus

Section C: Effectiveness of structured teaching programme on Diabetes Mellitus to the Diabetic patients

Section D: Assessment of practice usage of Glucometer by Observation checklist for self monitoring of blood glucose level

Section E: Effectiveness of practice session on Glucometer usage for self monitoring of blood glucose level

Section F: Association between knowledge and selected demographic variables.

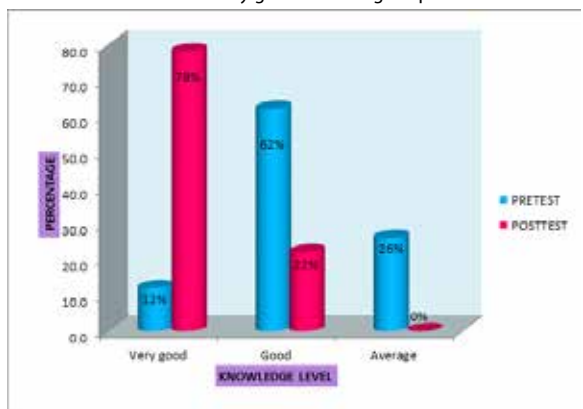
Section G: Association between practice and selected demographic variables

**Section A : Distribution of subjects according to socio demographic variables**

- 84% of the samples belong to the age group of 51 – 60 years
- 60% of the samples are females
- 92% of the samples are married
- 42% of the samples have primary education,
- 60% of the samples are belong to an income less than Rs.1600 per month.
- 58% of the Samples have been suffering from Diabetes mellitus for more than 4 years,

**Section B : Assessment of knowledge of Diabetic patients regarding Diabetes Mellitus**

- In the pretest, 62% of Diabetic patients had good knowledge whereas 78% had very good knowledge in posttest



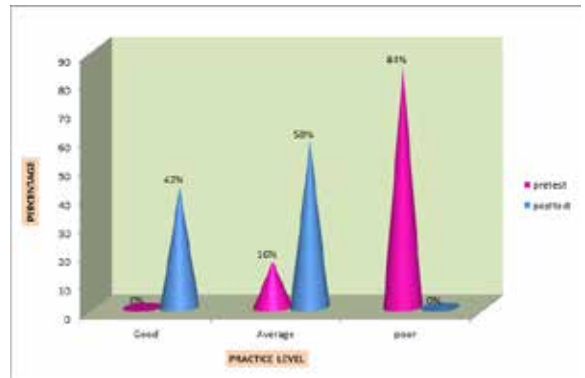
**Figure 1: Distribution of subjects based on knowledge level of the subjects**

**Section C: Effectiveness of structured teaching programme on Diabetes Mellitus to the Diabetic patients.**

The planned teaching programme was effective in improving the knowledge of the diabetic patients regarding diabetic management since the calculated T t value is 12.672. at 0.05 level of significance

**Section D : Assessment of practice usage of Glucometer by Observation checklist for self monitoring of blood glucose level**

In the pretest,84% of the samples had poor practice level on glucometer usage whereas 42% had good practice skill in using a Glucometer in post test



**Figure 2: Distribution of subjects based on the practice level of using Glucometer**

**Section E: Effectiveness of practice session of Glucometer usage for self monitoring of blood glucose level**

- The planned demonstration on glucometer usage for self-monitoring of blood glucose level was effective to improve the knowledge of the usage of glucometer for diabetic patients since the calculated T value is 22.68.at 0.05 level of significance
- **Section F : Association between knowledge and selected demographic variables.**

There was no significant association between pre test knowledge score and selected demographic variables.

**Section G: Association between practice and selected demographic variables.**

There was no significant association between pretest practice score and selected demographic variables.

**CONCLUSION**

A supportive educative system helps the diabetic clients in decision-making, behavior-control and knowledge acquisition. The education system can guide, teach and promote an environment for the diabetic clients to practice the preventive measures like diet control, exercises, medication and foot care and regular follow up.Lifestyle related risk factors play an important role in the development of Diabetes Mellitus. This is evident from increasing incidence of various secondary complications in diabetes. Some of these risk factors like dietary choices, smoking alcohol consumption, overweight and sedentary lifestyle are modifiable. Studies have shown that factors if effectively controlled, can lead to reduction in the risk of developing complications.

**RECOMMENDATIONS**

- A similar study can be conducted in different settings with large sample .
- A study can be conducted on psychosocial impact of Diabetes Mellitus on families and personal life.
- Promote public awareness regarding factors which can lead to the development of Diabetes Mellitus.
- Conduct in-service education programme regarding the nurse's role in the prevention of Diabetes Mellitus.
- Organize awareness programme among patients regarding major risk factors of Diabetes Mellitus.

**REFERENCES**

1. Black, MJ& Hawks, J.H(2008) Medical surgical nursing. New Delhi: A division of Reed Elsevier India Private Limited.
2. Agrawal,J.L,(2011)taking care of diabetes .Health action Vol 25:30
3. Chang LD.(2007) Impact of self monitoring of blood glucose. Cite: BMJ ; Available from:<http://www.bmj.com/content/335/7611/132>.
4. Peter B. (2000)A study on effect at adults self regulation of diabetes on quality of life outcomes Columbia . : [www.medline.com](http://www.medline.com)