

**“A STUDY ON THE CONSUMER BUYING
BEHAVIOUR TOWARDS BLOOD GLUCOSE
MONITORING DEVICES”**

DISSERTATION REPORT

By

Saurabh Rai

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Under the Guidance of:-

Dr. Sandeep Narula



**1, Prabhu Dayal Marg, near Sanganer Airport,
Maruti Nagar, Jaipur, Rajasthan 302029**

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Summary

At this point, diabetes mellitus, has become a very popular and well-known word for everyone, and this is due to several reasons, such as change of lifestyle and eating habits, genetics, etc. it will lead to an increase in the number of patients with diabetes on a day to day basis. Thus, many pharmaceutical companies are planning to capture this segment, with the introduction of more and more, as well as diabetic solutions available on the market.

In this study, in-depth interviews were carried out in order to compare the respondents' perceptions of the understanding of the behavior of the client, with the help of the MDS (Multidimensional Scaling) approach. After passing through the whole of the survey, it was revealed that the. The Glucose meter, the consciousness of the application. Out of the total number of respondents, about 3 / 4th of the population of cities and towns, as well as the quality of the service, to wit, a blood glucose meter. The effectiveness of the experience, and the advice of colleagues, are all important factors that influence the consumer to purchase a product. The brand, which plays an important role in the purchase of a glucose meter.

Introduction

Type 1 diabetes is considered a disorder in children and adolescents, but this perception has changed over the past decade, so age at onset of symptoms is no longer a barrier. Polydipsia, polyphagia, and polyuria (an old trio of symptoms associated with the onset of the disease) and hyperglycaemia are more common diagnostic symptoms in children and adolescents, and at a lower rate in adults. The immediate need for external insulin replacement is a feature of type 1 diabetes, which requires constant treatment. Key questions remain regarding the type 1 diabetes epidemiology, the effectiveness of current treatments, the understanding of how the disease develops, and the prevention or treatment of the disease.

T1D is a multi-faceted disease in which both environmental and genetic factors play a major role. The tug-of-war event is still unclear and many defensive incidents follow. In this brief review, we discuss the potential role of natural factors and the underlying causes of the disease. In addition, as the disease progresses, beta cells are lost and this happens in a very different way. Our knowledge of how beta cell mass decreases and our view of the pathogenesis of the disease is also refuted. We emphasize the main symptoms of the disease, among which are MHC-I (Major histocompatibility complex class I)

expression and insulinitis. Negotiation of reliance on anti-inflammatory immunodeficiency is discussed, as both influences from T cells that are resistant to the formation of neo-epitopes by mutation will influence the course of the disease. As human studies increase, our susceptibility to the pathogenesis of this disease will increase dramatically.

Glucometer

A glucose meter (or glucometer) is a medical tool for determining the approximate level of glucose in the blood. It is important to monitor home blood glucose (HBGM) for people with diabetes or hypoglycaemia. A small drop of blood, obtained by piercing the skin with a lancet, is placed on a readily disposable test strip that is used and used to calculate blood sugar levels. The meter then indicates the level in mg / dl or mmol / l. The cost of monitoring blood glucose at home is high due to the cost of test strips.

Future Prospects of Glucometer

No the number of diabetic patients is increasing day by day and lifestyle is known to be important in developing type 2 diabetes such as busy lifestyle, obesity, junk food, irregular diets, night parties, alcohol, smoking.

Environmental toxicity can contribute to the recent rise in type 2 diabetes. In one study, those with high levels of physical activity, a healthy diet, who did not smoke, and who drank moderately had a 82-percent lower risk of diabetes. In terms of weight gain the average was 89% lower. In this study, healthy foods were defined as high fiber with high polyunsaturated to full saturated fat and low glycemic index. Obesity has been found to contribute to about 55% diabetes and reduced consumption of saturated fats and fatty acids while supplementing with unsaturated fats can reduce the risk.

Review of Literature

The advancement of technology, and one that is hard to endure, it is nothing more than, "today's fast-paced life, the health of the people and the culture have left their traces in a way of life, it is now synonymous with a lot of fast food, lack of exercise, and other physical and mental stress."

The level of sugar in the blood, it is nothing more than an indication of actual image of a person's life. The variation of the blood sugar to normal levels of sugar makes for some of the negative psychological changes in the body that are of critical importance in the treatment of diabetes.

Type 1 diabetes is a chronic disease that no one has been able to produce insulin due to the destruction of the beta cells.

Signs and Symptoms

- * Polyuria
- * Polydipsia
- Instagram
- Unexplained weight loss

Other symptoms include fatigue, nausea and vomiting, and blurred vision.

In the beginning, you may have a sudden, and it is not uncommon for patients with type 1 diabetes and diabetic ketoacidosis.

Glucometer Concept

Many glucose meters use glucose oxidation in gluconolactone produced by glucose oxidase (sometimes known as GOD). Others use a similar reaction with another enzyme, glucose dehydrogenase (GDH). This has a sensitivity benefit over glucose oxidase but is more effective in disrupting the reaction of other substances.

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low glycemic index. Obesity has been found to contribute to about 55% of diabetes and a decrease in the use of saturated fats and trans fatty acids

Self Monitoring

Real-time glucose monitoring - using continuous glucose monitors (CGMs) can help patients improve glycemic control. [6,7] CGMs contain subcutaneous nerves that measure interstitial glucose levels every 1-5 minutes, providing alarms when blood sugar levels are high or low.

SMBG programs have the potential to play an important role in the management of diabetes and in reducing the risk of serious clinical complications. This review describes the transition from a simple urine sugar test to high-level meters and reagent strip systems to monitor blood sugar. Significant advances in construction and technology over the past four decades have been noted since the first meter was introduced in 1970. The factors contributing to this evolution and the challenges of improving analytical performance are discussed. Current problems in the role of SMBG from the patient and the clinician.

Objectives

- Perceptual mapping of buying behavior of Diabetic patients with respect to Blood Glucose Monitoring System (Glucometer).
- To evaluate the convenience of using Glucose Monitoring devices among the diabetic patients.

Research Methodology

Sample Design

- Sampling Frame: The sampling frame for this study will be 150 adults with diabetes type 1 between 18 to 50 years both male and female suffering from diabetes.
- Sample size: The sample of 100 type 1 Diabetes Patients
- Sample area: Kanpur
- Sampling Procedure: The sampling procedure used was random sampling.

Research Design

Descriptive as well as exploratory research.

Data Collection Method

Structured Questionnaire

Data Collection Sources:

Primary Data

Data Collection tool & techniques: In depth interviewing technique: Data was collected through in-depth interview of patients through questionnaire.

Questionnaire Design: A structured questionnaire was designed covering, close ended questions. The questionnaire included the questions in reference with product requirement and factor affecting choice of the Glucometer.

Study Area: The study was carried out in Kanpur.

Sample Population: The inclusion criteria will be all the Type-1 diabetic patients in the healthcare facilities who are available for the study and are willing to participate. The exclusion criteria will be Type-2 diabetic patients.

Patient below the age of 18 will not be considered.

Primary Data: Eligible patients of type-1 diabetes male and female in the healthcare facility.

Data Analysis Procedure: Data will be analyzed with the help of MS-Excel and descriptive analysis will be done.

Data Collection Instrument: Interview of Type-1 diabetes patients

Structured questionnaire

Observation

Using available information

Data Analysis

The analysis of questionnaire is done in Excel. Graphical Analysis is done on the questionnaire.

Q1. Do you know Glucometer?

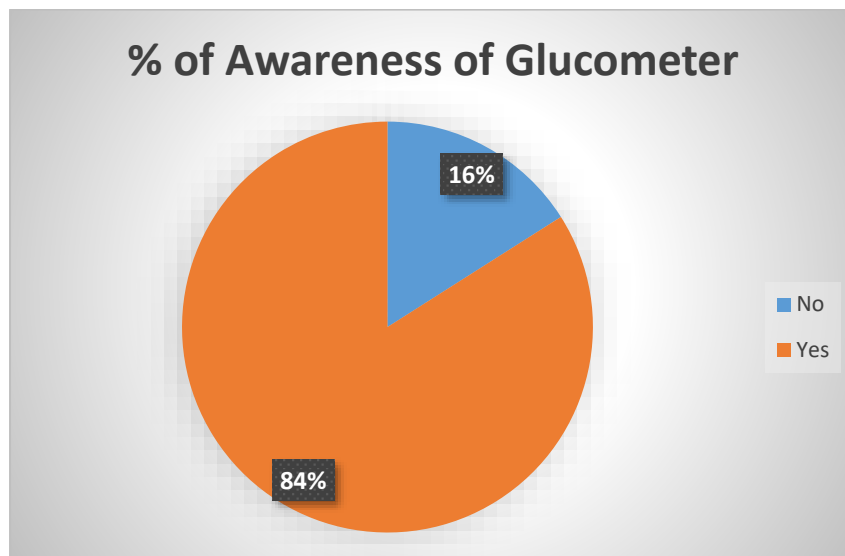


Fig 1: Amongst the 100 respondents 84% of people responded that they are aware about glucometer and 16% responded that they are not aware about glucometer.

Q2. Do you use Glucometer?

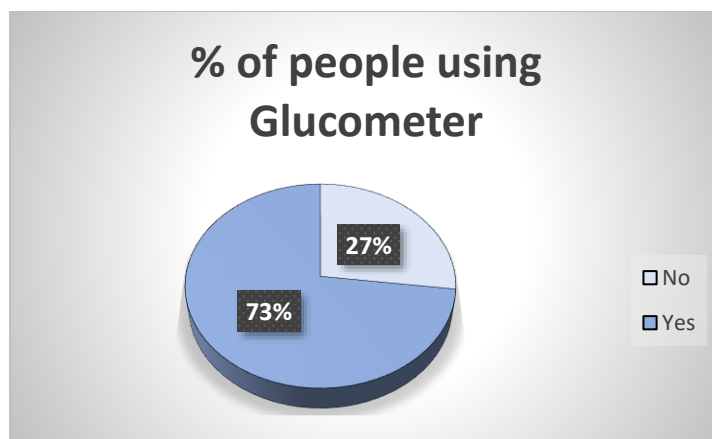


Fig 2: Among the 100 respondents 73% of type 1 diabetes respondents responded that they use glucometer while 27% people that they do not use glucometer.

Q3: Prefer glucometer based on past experience?

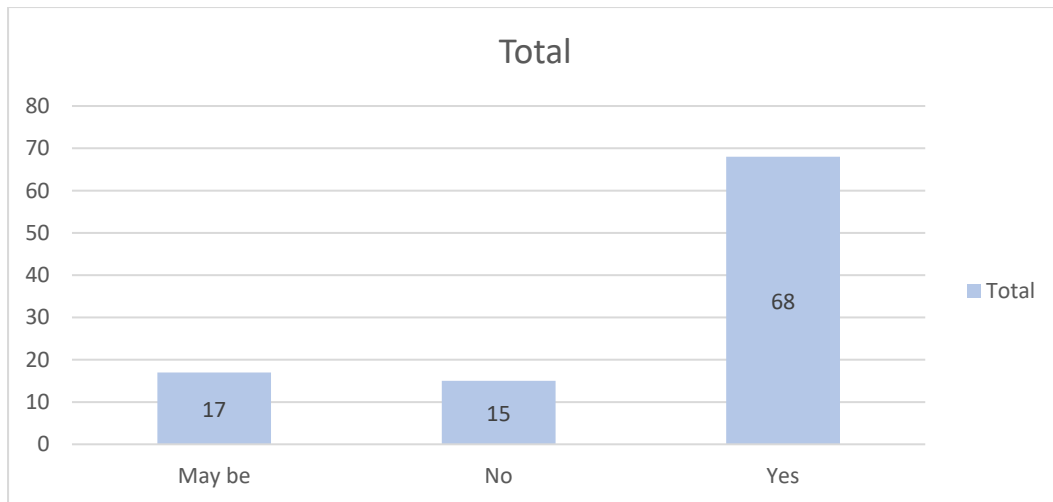


Figure 3: In above graph the maximum people are saying that they are using Glucometer based on their past experience.

Q4: Glucometer gives information to manage your diabetes?

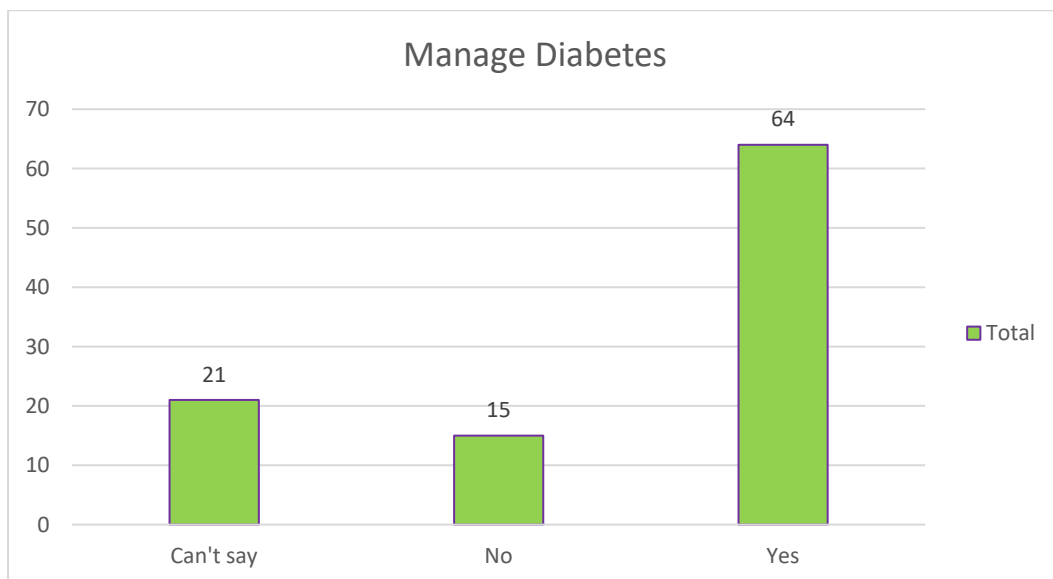


Figure 4: Above graph shows that the people are agree in maximum no. the Glucometer is gives information to manage your diabetes

Q5: Glucometer makes you more confident about adjusting meal time insulin?

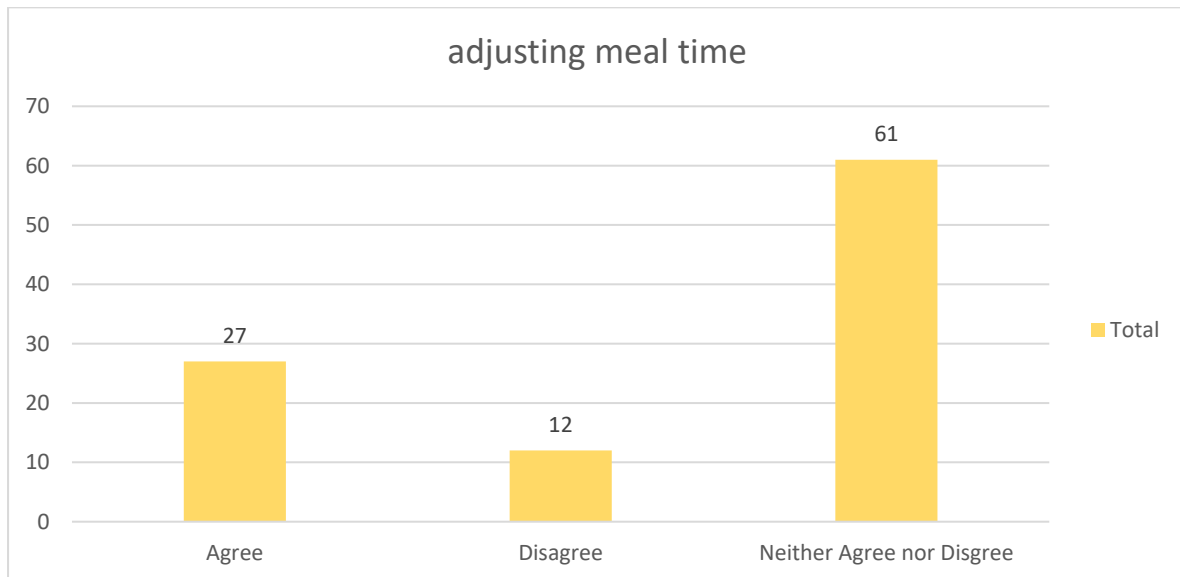


Figure 5: In this graph respondents are confused to say about adjusting meal time.

Q6: Glucometer makes your life easier?

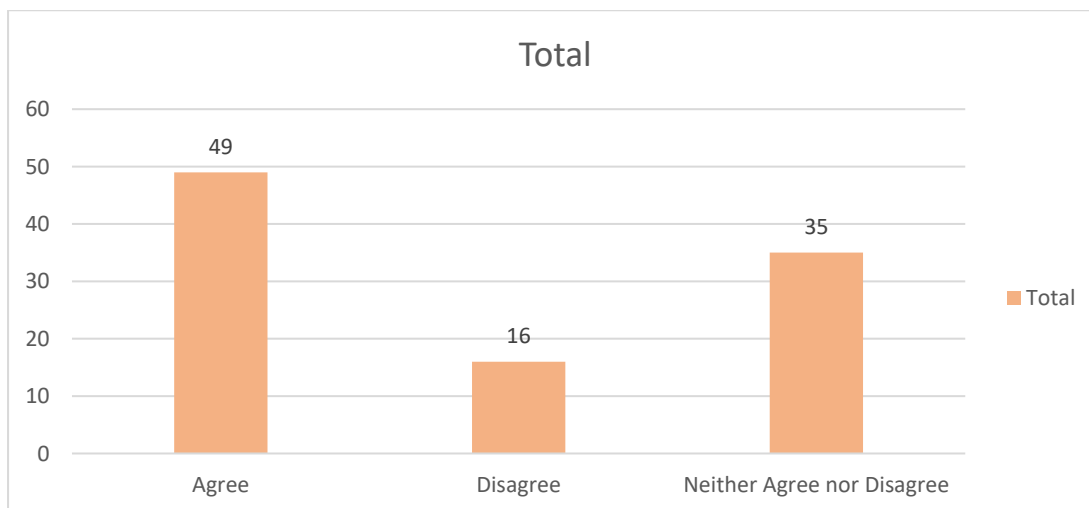


Figure 6: In above figure the maximum no of respondents are agree that glucometer makes their life easier.

Q7: Brand influence me to purchase Glucometer?

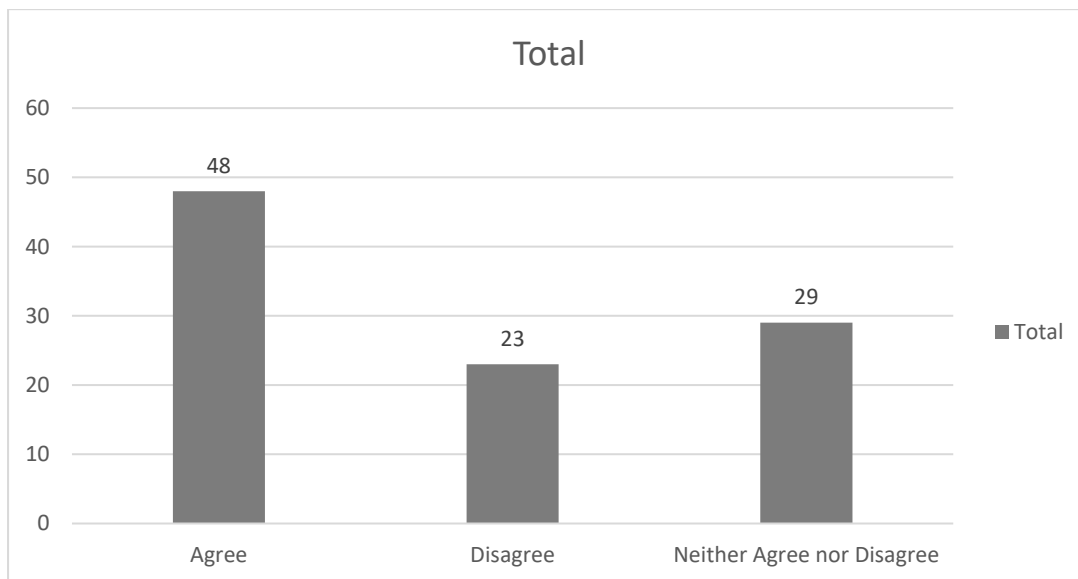


Figure 7: The highest rating that people are agree about that sometimes brand also influence then to buy glucometer.

Q8: Prefer glucometer only when Doctor Advice?

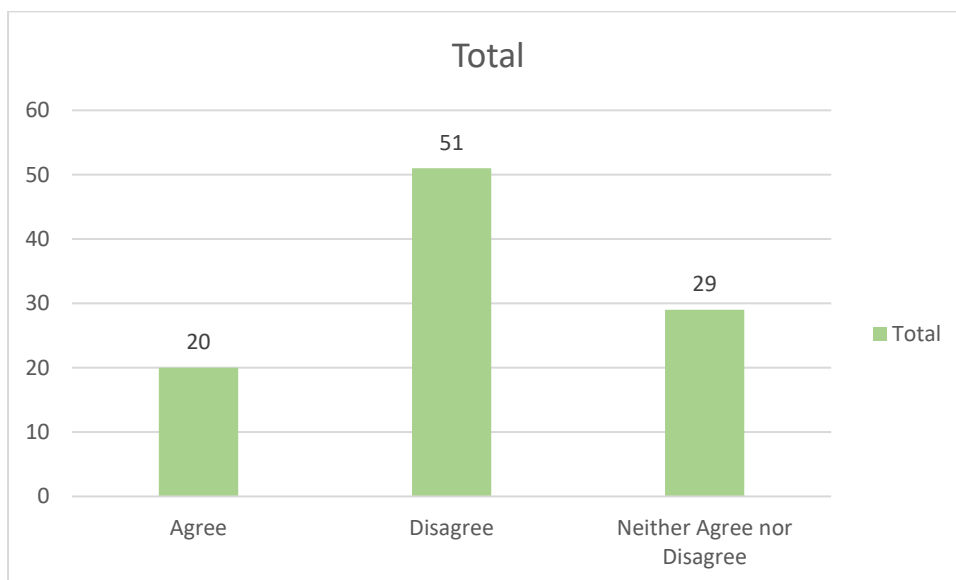


Figure 8: In above graph the maximum of respondents are use glucometer before doctor advice.

Conclusion:

- From this study we can conclude that the product plays a major role in influencing patients.
- Nowadays Diabetes is now known by everyone and the disease is spreading all over the world. To address this problem the whole company introduces new technology solutions every day.
- 84% of people know about Glucometer but still 27% of people with diabetes still do not know about Glucometer, which is a concern.
- Although most people with diabetes agree that Glucometer makes their life easier, most people also rely on doctors' advice to buy Glucometer.