



The Knowledge and Attitude about Diabetic Medications by Patients Attending Government Medical College and Esi Hospital in Coimbatore, Tamilnadu

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ABSTRACT: OBJECTIVE: To assess the knowledge and attitude about diabetic medications by patients in Government Medical College and ESI hospital (tertiary care teaching hospital) in Coimbatore.

MATERIALS AND METHOD: MODE OF STUDY: Prospective cross sectional study using a preformed questionnaire¹.

MATERIALS: Questionnaire, 150¹ diabetic patients in this hospital and the patients included in the study were on diabetic treatment for at least 6 months or more.

Interactive method

RESULTS: Each patient was on an average of 3 or more medications per day. The percentage of patients found to be non-adherent to the medication in the government medical college was around 36%. The main reasons for the non-adherence were not following the prescription and not taking the tablets for required duration, taking non-prescribed medications, forgetting to take the medications. Monitoring of blood sugar and following diet schedule was not done regularly by patients coming government hospital which was approximately 77% and 43% respectively.

CONCLUSION: The main reason of non-adherence was because our patients are not aware of the importance of diabetic medications. This study clearly expresses that there is a definite need

for active discussion sessions between the patients and the physicians to equip patients to follow antidiabetic medications and measures.

KEYWORDS: Non-adherence, Knowledge, Attitude, Type II Diabetes Mellitus

I. INTRODUCTION:

There is a worldwide increase in the prevalence of type II diabetes². This is more in developing countries like India. The rapid industrialization with urbanisation is the root cause of increase in type II diabetes^{3,4}. The prevalence of diabetes worldwide was 4% in 2019, which will rise to 5.4 in 2025⁵. The extent to which the patient follows the prescribed medications is defined as adherence⁶. Glycemic control in type II diabetes is difficult because of non-adherence of the patients to medications⁷. A good glycaemic control cannot be obtained only by adhering to the treatment schedule but diet, exercise and regular blood sugar monitoring are the other factors which are equally important in the management of chronic diabetes. Therefore it is vital to find out the percentage of non-adherence to medication and the factors influencing the same. This is one of the first study to compare the knowledge and attitude about diabetic medications by patients in Coimbatore, South India.



II. MATERIALS AND METHODS:

PROSPECTIVE CROSS SECTIONAL STUDY USING A PREFORMED QUESTIONNAIRE¹

STUDY INITIATED AFTER THE APPROVAL OF INSTITUTIONAL HUMAN ETHICS COMMITTEE



STUDY WAS CONDUCTED FROM 1st NOVEMBER TO 11th DECEMBER 2017 IN PATIENTS ATTENDING OUTPATIENT CLINIC IN

GOVERNMENT MEDICAL COLLEGE AND ESI HOSPITAL, COIMBATORE (TERTIARY CARE TEACHING HOSPITAL)



PATIENTS INCLUDED IN THIS STUDY WERE TYPE II DIABETIC PATIENTS ON 3 OR MORE MEDICATION FOR ATLEAST 6 MONTHS OR MORE

PATIENTS OF EITHER GENDER AND ABOVE 18 YEARS WERE INCLUDED IN THIS STUDY

III. RESULTS:

Around 150 patients were included in this study, out of which 89 were men and 61 were women. Patients included in this study were type 2 diabetic patients and were on 3 or more medications for at least 6 months or more.

The table no.1 and chart no.1 shows the patient's knowledge about the factors which modify blood sugar other than medications. About 39% of the patients did not go for regular follow

up. Regarding the blood sugar monitoring and its importance 41% of the patient failed in blood sugar monitoring and 38% were not aware of the importance of the same.

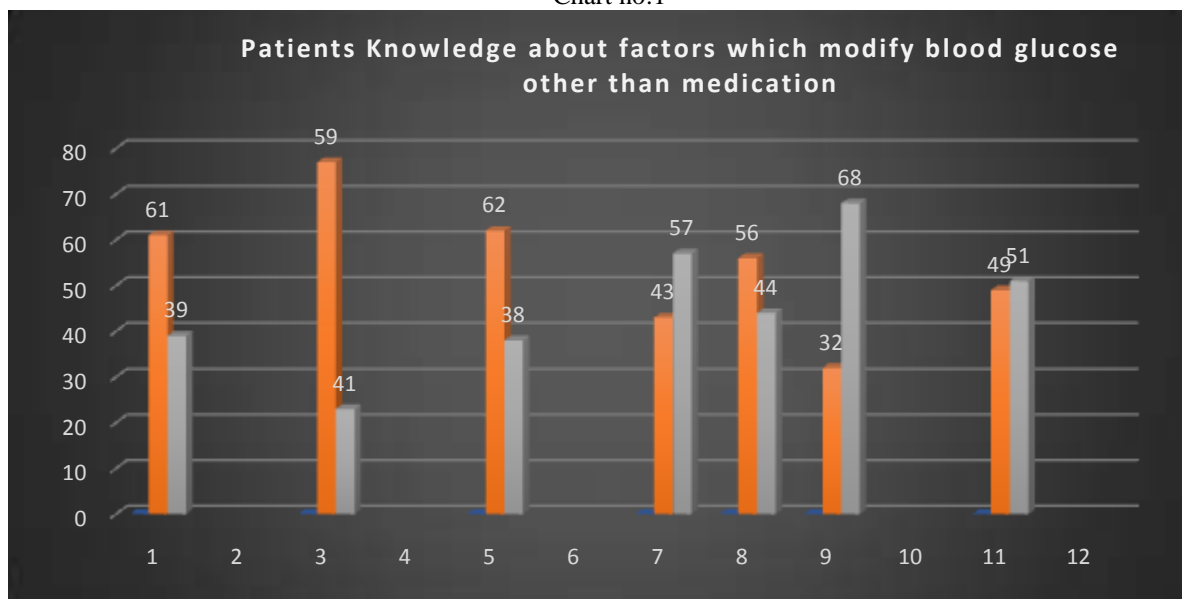
Only 43% and 32% of the diabetic patients attending our hospital followed diabetic diet and exercise respectively. Knowledge about diet control and exercise was lacking in 44% and 51% respectively.

SL.No:	Patients Knowledge about factors which modify blood glucose other than medication	YES %	NO%
1	Regular Follow-up with the physician / Diabetologist	61	39
2	Regular Blood sugar monitoring	59	41
3	Knows the importance of Blood sugar monitoring	62	38



4	Follows diabetic diet	43	57
5	Knows the importance of diet control	56	44
6	Follows regular exercise	32	68
7	Knows the importance of exercise	49	51

Chart no:1



This table 2 and Chart no: 2 shows the attitude of diabetic patients towards their medication. This shows that since the medications are given free of cost in the ESI Hospital only 11% were not getting the prescribed medication. Even though the medications are given free of cost in the

hospital around 36% of patients were not following the prescription. It was found that 52% were having additional medication other than the diabetic medications and 61% were not taking the medication for the required duration.

SL.No:	Attitude of Diabetic patients towards their medication	YES	NO
1	Not getting all the prescribed medication	11	89
2	Not following the medication according to the schedule	36	64
3	Taking additional medicines which are not prescribed	48	52
4	Not taking medicines for the required duration	39	61



Chart No:2

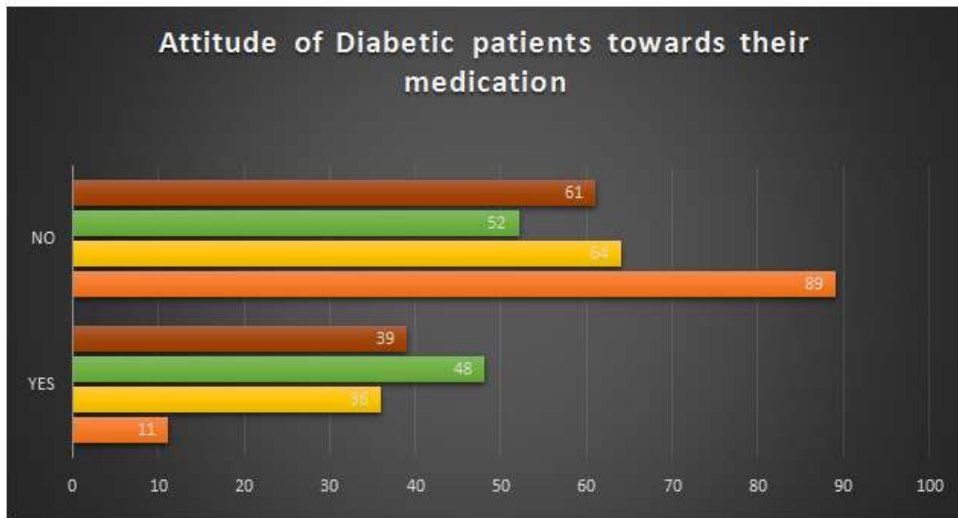
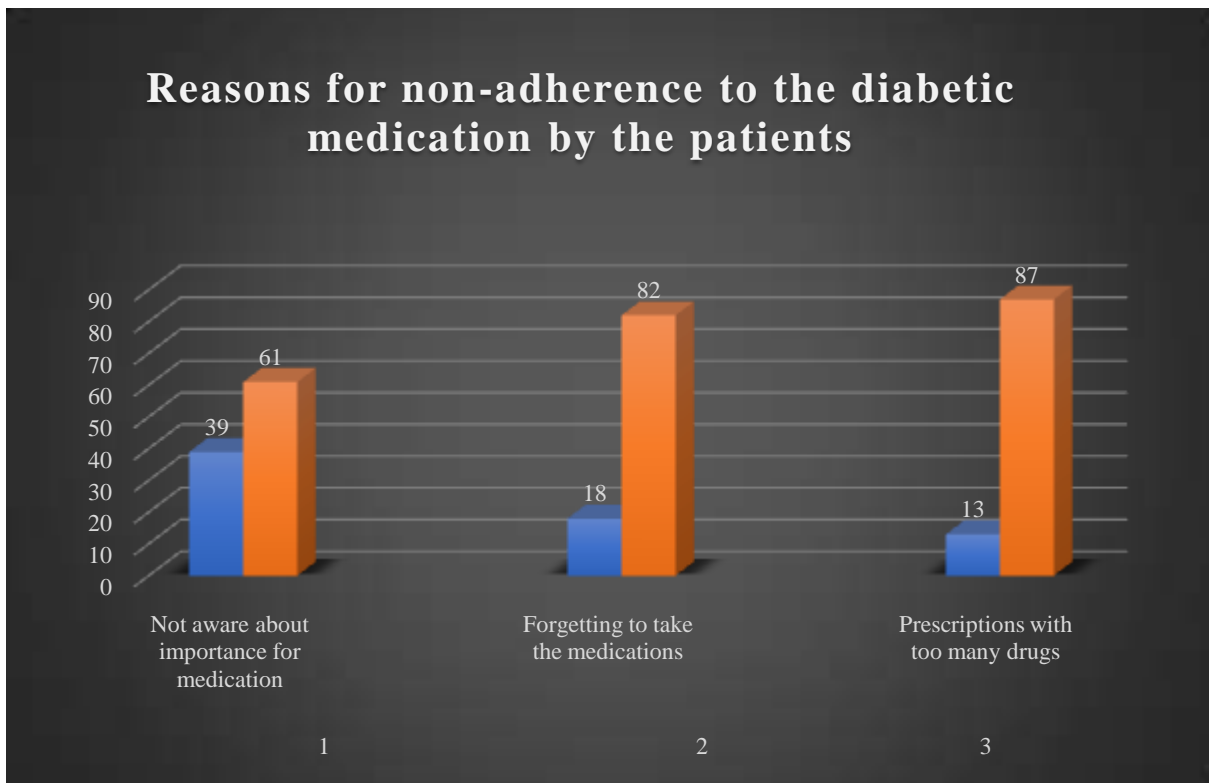


Table 3 and chart no:3 shows that 39% of patients were not aware about importance for medication while 18% were forgetting the medications and

finally 13% did not adhere to the diabetic medication because the prescription had too many drugs.

SL.No:	Reasons for non-adherence to the diabetic medication by the patients	YES	NO
1	Not aware about importance for medication	39	61
2	Forgetting to take the medications	18	82
3	Prescriptions with too many drugs	13	87





IV. DISCUSSION:

This is one of the first study to assess the knowledge and attitude about diabetic medications by patients attending government medical college and ESI hospital in Coimbatore, in South India.

The major challenge in developing countries is to make the type 2 diabetic patients adhere to the diabetic medication which will prevent them from complication. Nonadherence to the prescription is potentially a very serious problem because it is the single important reason for serious complications and wastage of the resources given by the health care system^{8,9}.

While assessing the adherence to treatment by the diabetic patients, it is necessary to evaluate the level of adherence to each component independently which are diet, physical activity, monitoring of blood sugar and life style changes, instead of using one single measure to assess adherence to the treatment. This is essential because adherence to one regimen is unrelated to the other regimen proving that adherence is not unidirectional^{10,11}. In our study 43% followed the diet, while only 32% did regular exercise. It was found that many of the patients were aware of essential factors necessary for the successful management of diabetes, in spite of this it was found that these patients did not adhere to these measures which needs strong motivation and self-control. Some studies have already proved that patients feel easy to adhere to medication than to diabetic diet and exercise¹².

The overall adherence to the treatment will be known only by regular follow-up and blood sugar monitoring, which was 61% and 59% respectively in this study. As we all know that regular blood sugar monitoring will help in accurate glycaemic control which have been documented in previous studies¹³.

Regarding the attitude towards diabetic medication since our patients are ESI patients who are getting medications free of cost all the patients except 11% were getting the medications as per the prescription. Only 36% were not following the prescription. Since the patients included in our study were above middle age and had added comorbidities therefore they were taking additional medications which was around 48%. It was found that 39% were not taking medications for the required duration.

There are numerous reasons documented for non-adherence like forgetfulness, not knowing the seriousness of the condition which shows the lack of patient's knowledge. A major role can be played by the Health Care professionals by improving the awareness among the patients which

will help in improving the adherence to the medication. Another reason for non-adherence is complex dosing. The patient's acceptance for the prescription can be predicted by a great extent which depends on the complexity of regimen and the adverse drug reaction for that particular regimen¹⁴.

V. CONCLUSION:

Our study clearly shows that knowledge of diabetic patients were reasonably good but attitude and practices were below par. The first priority for better control and the good management of this disease is by public health programs which involves educational interventions and behavioural changes.

RECOMMENDATIONS:

Government administration and NGO by educational arbitration can help the public to remove the false misbeliefs and myths about diabetes. Efforts by the health care professionals are needed to improve the understanding of the community people about the risk factors for diabetes, symptoms and the measures to be taken to prevent the progression of the disease. Finally by improving the literacy rate among the public would have a good impact in disease control.

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