

## Treatment Adherence of Known Diabetics in Rural Field Practice Area of Veleru, Krishna District, Andhra Pradesh.

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**Introduction:** India currently has 62.4 million people with Diabetes and 77.2 million people with pre-Diabetes. Diabetes mellitus is one of the leading causes of premature death worldwide along with other non-communicable diseases.

Hence, the main aim of this study is to know treatment adherence of known diabetics in rural field practice area of a private medical college the **objectives** 1. To know the treatment adherence 2. To know the type of medication. 3. To know the reasons for adherence. **Methodology:**The present study was communities based cross sectional study, a sample size of 120 subjects were taken up in the villages under the field practice area of the RHTC of a private medical college. **Results:**Only 42 (35%) are taking treatment for diabetes, which is quite alarming, Of them oral anti hyper glycaemics are taken by 71.4%(30), injectables are taken in 2.4%(1), & both are taken for the control of hyperglycemia in 11(26.2%) of them. Treatment status or duration since the onset of diabetes did not have a significant relation with status of diabetes as per the observations made in the present study. **Conclusion:** In the present study, Of the known diabetes only 35% are receiving treatment. Most of the people are not getting the investigations & getting the treatment done despite of knowing their diabetic status. Treatment compliance is not found in 80% of the persons receiving treatment. Health Education plays important role to change the attitude of the patients towards adherence.

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### I. Introduction

Type 2 Diabetes is a serious disease with its increasing prevalence day by day. People with Diabetes require at least 2-3 times the health care resources of people who do not have Diabetes, and Diabetes care accounts for up to 15% of national healthcare budgets<sup>1,2</sup> of many developed countries. Earlier it was believed to be more confined to metropolitan cities but many studies done recently has shown the results of increasing prevalence in rural communities. Diabetes is an “iceberg” disease, remaining asymptomatic for years, being discovered only at a stage with preexisting complications.<sup>3</sup> Simple life style and dietary modifications with adequate drug therapy can prevent or at least delay the complications of the disease.

Hence, the main aim of this study is to know treatment adherence of known diabetics in rural field practice area of a private medical college the objectives 1. To know the treatment adherence 2. To know the type of medication. 3. To know the reasons for adherence.

### II. Methodology

The present study was a community based cross sectional study, A sample size of 120 subjects were taken up in the villages under the field practise area of the RHTC of a private medical college. It is located in Veleru village, of Bapulapadu mandalam, Krishna district, Andhra Pradesh. Pre tested & Semi structured questionnaire was taken for data collection.

Inclusion criteria: People who have DM.

Exclusion criteria: People not present at the house at the time of visit.

Statistical Analysis: Data were entered in MS-Excel and analyzed in SPSS V17. Descriptive statistics were applied. Chi-square test was applied. P<0.05 was considered as statistically significant

### III. Results

**Age:** In the present study majority of the study subjects belonged to the age group of 30-69 yrs, and a minority of 16% being < 30 yrs & >70 yrs. With mean age of the study participants being 49.54 years. **Gender:** Gender wise distribution of the population in the study is such that, 4.7% of the study subjects being male & 55.3% being female. **Educational status:** Majority of the study subjects are illiterate (51%), where as 24.6 % are primary literates, 14.4 % being secondary literates , where as the participants with education more than higher secondary are only a minority of 10%. **Occupational status:** 47.6% of the study participants are agricultural labourers, where as 34.6 % of the female participants, are mostly house wives. Only a minority of 5.3% of the study participants are unemployed. **Socio economic status:** In the present study 5.7 % of the study participants belonged to class I, 12.1% belonged to class II, 22.3 % belonged to class III, 42% belonged to class IV & 17.9 % belonged to class V.

#### Adherence to the treatment:

- Adherence to treatment is assessed with *The Morisky Medication Adherence Scale-8*- and it was observed that there is 80% non adherence.

#### Type of treatment being followed in diabetics:

- Only 42 (35%) are taking treatment for diabetes, which is quite alarming
- Of them oral anti hyper glycaemics are taken by 71.4%(30), injectables are taken in 2.4%(1), & both are taken for the control of hyperglycaemia in 11(26.2%) of them.
- Treatment status or duration since the onset of diabetes did not have a significant relation with status of diabetes as per the observations made in the present study.

**Table-1:** Reasons for non adherence as per the scale the response obtained

Reasons	No.of responses	
	Yes	No
Occasional forgetfulness	42	0
Reasons other than forgetting for the past two weeks	0	42
Self stoppage of medicines without telling doctor	13	29
Missed yesterday medications	33	9
Stoppage of treatment on temporary relief from symptoms	14	28
Inconvenience in taking medications	14	28
Difficulty in remembering the dose & time of medication	9	33
Forgetting medication while travelling	0	42

### IV. Discussion

**Age:** In the present study majority of the study subjects belonged to the age group of 30-69 yrs, and a minority of 16% being < 30 yrs & >70 yrs. With mean age of the study participants being 49.54 years. Studies done by G. Vijaya Kumar et.al<sup>4</sup>., Nafisa C Vaz<sup>5</sup> et. al, Chow et. al<sup>6</sup>., Joshi et. al.,<sup>7</sup> showed almost similar mean age group.

**Gender:** Gender wise distribution of the population in the study is such that, 4.7% of the study subjects being male & 55.3% being female. In the similar study done by G. Vijaya Kumar et.al<sup>4</sup>., Nafisa C Vaz<sup>5</sup> et. al, Chow et. al<sup>6</sup> has shown the same results.

**Educational status:** Majority of the study subjects are illiterate (51%), where as 24.6 % are primary literates, 14.4 % being secondary literates , where as the participants with education more than higher secondary are only a minority of 10%. Study done by Rajesh<sup>7</sup>et. al., has shown the similar results.

**Occupational status:**47.6% of the study participants are agricultural labourers, where as 34.6 % of the female participants, are mostly house wives. Only a minority of 5.3% of the study participants are unemployed. Joshi et.al<sup>8</sup>., Mohan et.al<sup>9</sup>., Chow et.al<sup>6</sup>., has shown the similar findings.

**Socio economic status:**In the present study 5.7 % of the study participants belonged to class I, 12.1% belonged to class II, 22.3 % belonged to class III, 42% belonged to class IV & 17.9 % belonged to class V. Rajesh<sup>7</sup> et. al., study has shown similar results.

**Adherence to the treatment:**When adherence to the treatment is assessed with *The Morisky Medication Adherence Scale-8*, it was observed that there is a shocking result of 80% non adherence, it is concordance with the study Weon-young lee et.al.,<sup>10</sup>

**Type of treatment being followed in diabetics:** Out of 120 known diabetics among whom the treatment history is taken. In the present study it was observed that, medication is taken by 35% of known diabetics & 17% are not following any intervention, where as 48% following only dietary restrictions presuming that their hyperglycemia will be controlled, and 27 persons are following both the strategies of taking medications & dietary restrictions.

When enquired about the treatment status, only 42 (35%) are taking treatment for diabetes. Of them oral anti hyperglycaemics are taken by 71.4%(30), Injectables are taken in 2.4%(1), & both are taken for the control of hyperglycaemia in 11(26.2%) of them.

#### **Recommendations:**

- Many people are unaware of risk factors, so emphasis should be made risk factors of diabetes mellitus through mass media & health education sessions.
- Awareness camps should be conducted among the school children and youth, if possible on the days of National importance, so that the message could be easily carried to the audience.
- Regular screening camps should be conducted at village level to identify the cases at an early stage.
- Newly detected cases should be explained about the importance of follow up and need for taking the medication regularly.
- Awareness must be created among the people regarding other alternate/ indigenous systems of medicine (AYUSH) to make the treatment more acceptable to the people.

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