International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

Non - Adherence of Diabetic Patients to Antidiabetic Medication in Villupuram District after Covid Pantamic Period

R.Balameenakshi[1]*, Dr. S. Anbazhagan[1] B. Sowmiya[1], M.Ramya[1], V.Pravinkumar[1], K. Kiruthick[1],
1- Surya School of pharmacy, Vikravandi, Tamil Nadu, India

Submitted: 18-02-2024 Accepted: 26-02-2024

ABSTRACT

AIM: To study the non adherence and factor affecting adherence of diabetic to antidiabetic medication in diabetic patients.

OBJECTIVE: To study and categorize the age, occupation, residence , distance of hospital , alcohol conception , treatment intensity , regimen complexity , family history , use of the treatment , side effect , reason for missing medication , undesirable symptoms , covid vaccination severity diseases after vaccination , any other medication and also drug based studies.

MATERIALS AND METHODS :A prospective observational study has been conducted in 105 patients of diabetes millets in Villupuram district over the period of 3 months from September 2023 to November 2023. This information is regarding demographic detail, vital signs of drugs prescribed were collected from the patients case record and the data was compiled nonadherence and factor affecting adherence of diabetic to antidiabetic medication

RESULT: The Study Has Been Conducted In Patients With Diabetes Mellitus And 102 Diabetic Cases Were Reviewed In The Inpatient Department During Six Months Study Period. Patient's Medical Record, Demographic Details, Age Group, Laboratory Investigations, Vital Signs, Presence Of Co-Morbidity Were Reviewed

CONCLUSION AND DISCUSSION: This study shows an absence of self-monitored blood glucose level reason that they cannot afford the glucometer. Commonest signs and symptoms of DM as mentioned by the patients were Polyurea, Polydipsia, Blurred vision and headache, Sweating and weakness. This study discovered therapeutic non compliance of drug therapy is due to forgetfulness, and cost of the drug. Forgetfulness is due to the low level of knowledge with regards to DM treatment. The treatment of DM is burden and therefore need the support from patient, family, Society, health providers, Psychologist and many others. Government subsidy to DM drugs could be one of the effective intervention to Non adherence to Diabetic Mellitus drug treatment regimen. To prevent diabetes related morbidity and mortality, there is an immense need of dedicated self-care behaviors in multiple domains, including food choices, physical activity, proper medications intake and blood glucose monitoring from the patients. Though multiple demographic, socio-economic and social support factors can be considered as positive contributors in facilitating self-care activities in diabetic patients, role of clinicians in promoting

I. INTRODUCTION

DIABETES MELLITUS:

Diabetes mellitus is a group of metabolic diseases involving carbohydrate, lipid, and protein metabolism. It is characterized by persistent hyperglycemia, as a result of defects in insulin secretion, insulin action or a combination of both, defective secretion and incorrect action.

TYPES OF DIABETICS:

Type 1 diabetes:

There are several types of diabetes. Also known as juvenile diabetes, type 1 diabetes occurs when the body does not produce insulin. Insulin is a hormone responsible for breaking down the sugar in the blood for use throughout the body. A person living with type 1 diabetes may Trusted Source receive a diagnosis during childhood.

People living with type 1 diabetes need to administer insulin on a regular Trusted Source basis.

Individuals may do this with injections or an insulin pump.

There is no cure for type 1 diabetes. Once a person receives their diagnosis, they will need to regularly monitor their blood sugar levels, administer insulin, and make some lifestyle changes to help manage the condition.

Successfully managing blood sugar levels can help people living with type 1 diabetes avoid

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

serious complications. Some common complications include:

- ketoacidosis
- nerve damage
- issues with the eyes
- increased risk of skin infection
- issues with the kidneys
- cardiovascular disease
- foot problems, including numbness
- high blood pressure
- stroke

Type 2 diabetes

People with type 2 diabetes do not make or use insulin effectively. According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)Trusted Source, this is the most common type of diabetes, and it has strong links with obesity.

A person living with type 2 diabetes may or may not need insulin. In many cases, medication along with changes in exercise and diet can help manage the condition.

Anyone, including children and adults, can develop type 2 diabetes. The most common risk factors for type 2 diabetes include:

- age 45 or older
- overweight
- family history

Gestational diabetes:

Gestational diabetes occurs during pregnancy when an individual becomes less sensitive to insulin. According to the Centers for Disease Control and Prevention (CDC), between 2–10%Trusted Source of pregnancies each year result in gestational diabetes. Individuals who are overweight going into their pregnancy have an elevated risk of developing the condition.

The CDC adds that around 50% of people with gestational diabetes will later develop type 2 diabetes. During pregnancy, individuals can take steps to manage the condition.

These include:

- staying active
- monitoring the growth and development of the fetus
- adjusting their diet
- monitoring blood sugar levels

Gestational diabetes can increase a person's risk of developing high blood pressure during pregnancy. It can also cause:

- premature birth
- increased birth weight
- blood sugar issues with the newborn, which typically clear up within a few days
- increased risk of the baby developing type 2 diabetes later in life

Prediabetes

Prediabetes, or borderline diabetes, occurs when a person's blood sugar levels are elevated but not enough for a diagnosis of diabetes. For a doctor to diagnose prediabetes, an individual must meet the followingTrusted Source criteria:

- glucose tolerance levels of 140–199 milligrams per deciliter (mg/dl)
- an A1C test result of 5.7–6.4%
- fasting blood sugar levels between 100–125 mg/dl

People living with prediabetes have a higher risk of developing type 2 diabetes, but they do not usually experience the symptoms of full diabetes.

The risk factors for a person developing prediabetes and type 2 diabetes are similar. They include:

- being overweight
- a family history of diabetes
- having a high-density lipoprotein (HDL) cholesterol level lower than 40 mg/dl or 50 mg/dl
- a history of high blood pressure
- having gestational diabetes or giving birth to a child with a birth weight of more than 9 pounds
- a history of polycystic ovary syndrome (PCOS)
- being of African-American, Native American, Latin American, or Asian-Pacific Islander descent
- being more than 45 years of age
- having a sedentary lifestyle

MODERN TREATMENT

People with type 1 diabetes and some people with type 2 diabetes need to use insulin every day. People continued to use injectable animal-based insulin for many years, but recent years have seen further advances in treatment.

These include the introduction of insulin analogs and the development of new ways to

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

deliver insulin. Both of these factors have made diabetes treatment more effective.

Human insulin

In 1978, scientists createdTrusted Source the first human-based insulin, which they named Humulin. Humulin is identical in structure to human insulin.

Lispro, the first short-acting insulin, appeared on the market in 1996. Lispro begins to work about 15 minutes after injection and keeps working for 2–4 hours.

Long-acting insulins, such as insulin glargine, take longer to absorb and remain active for up to 24 hours.

People who use insulin tend to combine long- and short-acting types. The long-acting dose works throughout the day, while the short-acting dose boosts insulin levels around mealtimes.

Insulin delivery systems

Over time, not only have new forms of insulin become available, but there are also new methods of delivery.

In the 1980s, the first blood glucose monitors became available for home use, providing an accurate way to monitor blood sugar. People who use insulin have to measure their glucose levels to determine how much insulin they need and how well their treatment is working.

In 1986, the insulin pen delivery system appeared. These prefilled syringes, which come in specific measures, are a safe and convenient way of delivering the required dose of insulin.

The 1990s saw the invention of external insulin pumps, which, with correct use, can provide:

- better results
- more flexibility
- easier treatment management

These and other inventions help people manage their condition themselves. By increasing their awareness and skills, people can take more control over their health and feel more confident that they are managing their condition.

Non-insulin treatment

Not everyone with type 2 diabetes uses insulin. Research has increasingly shown that a healthful diet is crucial for preventing and managing type 2 diabetes.

Ongoing research is investigating the most appropriate diet to follow and the role of other lifestyle factors, such as cigarette smoking, stress, and sleep.

Non-insulin medications

A number of non-insulin therapies for diabetes emerged during the 20th century. People can take each of these by mouth.

They include:

Metformin: The discovery of metformin stemmed from the use of Galega officinalis (also known as goat's rue or French lilac) as a medieval treatment for diabetes. Metformin is a biguanide. Scientists developed several biguanides during the 19th century, but they either had severe side effects or did not reach the market. Metformin became available in the United States in 1995.

Sulfonylureas: These contain a type of chemical called sulfonamides, some of which can reduce blood sugar. Carbutamide became available in 1955, and since then, other sulfonylureas have appeared.

Pramlintide: Doctors sometimes prescribe this drug for people with type 1 diabetes to slow the rate at which the stomach empties, reduce glucagon secretions from the pancreas, and help a person feel full. In this way, it can help with weight loss and reduce the amount of insulin that a person needs.

Sodium-glucose cotransporter 2 (SGLT2) inhibitors: These reduce blood glucose independently of insulin by decreasing the amount of glucose that the body absorbs. They can also help lower blood pressure and body weight. Current guidelines recommend that doctors prescribe them for people with type 2 diabetes who have a risk of atherosclerotic cardiovascular disease. The Food and Drug Administration (FDA) have not approved them for the treatment of type 1 diabetes.

Glucagon-like peptide 1 (GLP-1) receptor inhibitors: These can reduce glucose levels in the body and lower the risk of cardiovascular disease in people with type 2 diabetes who are at high risk of a heart

PREVENTION:

A person cannot prevent type 1 diabetes. However, people can take some steps to help prevent type 2 diabetes.

Some ways to help prevent type2 diabetes include Trusted Source:

- maintaining a moderate weight
- eating a balanced diet low in added sugars, saturated fats, and processed foods

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

- exercising regularly
- To reduce the risk of developing gestational diabetes, a person should maintain a moderate weightbefore becoming pregnant.

While these steps can help, it is important to note that people may still develop either type 2 or gestational diabetes.

MEDICATION ADHERENCE

The U.S. Food and Drug Administration (FDA) states,"Medication adherence, or taking medications correctly, is generally defined as the extent to which patients take medication as prescribed by their doctors. This involves factors such as getting prescriptions filled, remembering to take medication on time, and understanding the directions."

The American Medical Association says,"A patient is considered adherent if they take 80% of their prescribed medicine(s). If patients take less than 80% of their prescribed medication(s), they are considered nonadherent." Medication adherence is defined by the World Health Organization as "the degree to which the person's behavior corresponds with the agreed recommendations from a health care provider."

Why is adherence to medications important?

Adherence to medications has always been a problem among patients. As the elderly are prone to multiple comorbidities, they are at higher risk of polypharmacy, and therefore may present with higher risk of nonadherence to medications compared to the younger population.3 This results in decreased therapeutic benefits for the patient, frequent hospital and physician visits due to the deterioration of their medical condition, increased health care expenditure, and even overtreatment of a condition.4, 5

Using diabetic medications as an example: if a patient frequently misses his medications, the drug level may not remain within the therapeutic range. When the levels fall below the therapeutic range, the drug may not be able to reduce optimally the excess glucose that is present in the blood thus resulting in suboptimal glucose control. When the patient comes for follow-up, their blood sugar levels. May Be Suboptimal, Prompting The Physician To Titrate The Dosage If Adherence To Medications Was Not Checked. This Unnecessary Titration In Dosage May Predispose The Patient To An Increased Risk Of Both Hypoglycemic And Hyperglycemic Episodes, Which, If Not Managed Well, May Be Detrimental To The Patient.6 In The Long Run, The Chronic Diseases May Not Be Well Controlled And May Even Result In Progression Of The Disease.

II. METHODOLOGY

1. GENDER.

Out of 102 patients, 61(59.78) were reported to be male and 41(40.18) were reported to be female.

TABLE 1: GENDER CATEGORIZATION (n=102)

GENDER	NO OF PATIENTS	PERCENTAGE
MALE	61	59.78
FEMALE	41	4 0.18

Table 1: illustrates that male were more prone to develop diabetic mellitus than female

1. MALE

20(32.78) of diabetic mellitus patients were reported with in age group of 40-49 years and 7 (11.47) were reported with in age group 20-29

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

TABLE 2: AGE GROUP CATEGORIZATION (n=61)

AGE GROUP (YEARS)	NO OF PATIENTS (n)	PERCENTAG E
UNDER 19	1	1.63
20-29	7	11.47
30-39	6	9.83
40-49	20	32.78
50-59	16	26.22
60-69	8	13.11
70 AND OLDER	3	4.91

FEMALE

12(29.16) of diabetic mellitus patients were reported with in age group of 50-59 years and 10 (24.3) were reported with in age group of 40-49.

TABLE 3: AGE GROUP CATEGORISATION (n=41)

AGE GROUP (YEARS)	NO OF PATIENTS (n)	PERCENTAG E %
20-29	1	2.43
30-39	9	21.87
40-49	10	24.3
50-59	12	29.16
60-69	4	9.72
70 AND OLDER	5	12.15

OCCUPATION (n=102).

Out of 102 patients, 39(38.22) of diabetic patients were reported as a Farmer, 34 (33.32) of diabetic patients were reported as a housewife

TABLE :4

GROUP	NO OF PERSONS	PERCENTAGE
FARMER	39	38.22
MERCHANT	19	18.62
HOUSE WIFE	34	33.32
TEACHER	4	3.92
STUDENT	6	5.88

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

RESIDENCE (n=102).

Out of 102 patients, 43(42.14) of diabetic patients were reported as Urban and 59(57.82) of diabetic patients were reported as a Rural.

TABLE :5

GROUP	NO OF PERSONS	PERCENTAGE
URBAN	43	42.14
RURAL	59	57.82

DISTANCE OF HOSPITAL (n=102).

Out of 102 patients, 72 (70.56) diabetic patients were reported as distance of hospital is <0.5 and 30 (29.4) diabetic patients were reported as distance of hospital is >0.5.

TABLE: 6

GROUP	NO OF PERSONS	PERCENTAGE
Less than 30 minutes	72	70.56
More than 3 hours	30	29.4

MONTHLY INCOME (n=102).

Out of 102 patients, 22(21.56) diabetic patients were reported as income is less than 5000, 61 (59.78) diabetic patients were reported as income is between 5000 to 10,000 and 19 (18.62) diabetic patients were reported as income 10,000 to 20,000.

TABLE: 7

GROUP	NO OF PERSONS	PERCENTAGE
<5,000	22	21.56
5,000-10,000	61	59.78
10,000-20,000	19	18.62

ALCOHOL CONSUMPTION (n=102).

Out of 102 diabetic patients, 21(20.58) number of diabetic patients are consuming alcohol and other 81 (79.41) number of diabetic patients are not consuming alcohol.

TABLE:8

GROUP	NO OF PERSON	PERCENTAGE
YES	21	20.58
NO	81	79.41

CIGRETTE SMOKING (n=102).

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

Out of 102 diabetic patients, 9 (8.82) number of persons are cigarette smoking and 93 (91.17) number of patients are not a smoker.

TABLE :9

GROUP	NO OF PERSON	PERCENTAGE
YES	9	8.82
NO	93	91.17

DURATION OF DISEASE (n=102).

Out of 102 diabetic patients, 34(33.32) number of patients had a diabetic for less than one year, 54(52.92) number of persons had a diabetics for one to five years and 14 (13.72) members had greater than 5 years.

TABLE : 10

GROUP	NO OF PERSONS	PERCENTAGE
<1 YEARS	34	33.32
1-5 YEARS	54	52.92
>5 YEARS	14	13.72

MEDICATIONS REGIMEN (n=102).

Out of 102 diabetic patients , 62 (60.76) number of patients taking oral hypoglycemic, 14 (13.72) number of patients taking insulin and 26 (25.48) number of patients taking both.

TABLE 11:

GROUP	NO OF PERSON	PERCENTAGE
ORAL HYPOGLYCEMIC AGENT	62	60.76
INSULIN	14	13.72
BOTH	26	25.48

DRUG REGIMEN COMPLEXITY (n=102).

TABLE:12

GROUPS	NO OF PERSONS	PERCENTAGE
SIMPLE	77	75.46
COMPLEX	25	24.5

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

FAMILY HISTORY OF DIABETICS (n=102).

TABLE :14

GROUP	NO OF PERSONS	PERCENTAGE
YES	49	48.02
NO	53	51.94

GLUCOMETER UTILIZATION (n=102).

TABLE: 15

GROUP	NO OF PERSONS	PERCENTAGE
YES	40	39.2
NO	62	60.76

USE OF OTHER TREATMENT (n=102).

TABLE :16

GROUP	NO OF PERSONS	PERCENTAGE
YES	30	29.4
NO	72	70.56

WHY OTHER TREATMENT BESIDES HOSPITAL TREATMENT(n=30).

Out of 30 diabetic patients, 18 (60) number of patients using other treatment beside hospital due to drug is not curable, 11 (36.66) number of patients using other treatment beside hospital due to religion related.

TABLE :17

GROUP	NO OF PERSONS	PERCENTAGE
DRUG IS NOT CURABLE	18	60
RELIGION RELATED	11	36.66
DISTANCE HEALTH FACILITY	1	3.33

SIDE EFFECTS (n=102).

Out of 102 diabetic patients, 43 (42.14) number of patients had side effects and 59 (57.82) number of patients had no side effects.

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

TABLE :18

GROUP	NO OF PERSONS	PERCENTAGE
YES	43	42.14
NO	59	57.82

SIDE EFFECTS AFTER MEDICATION (n=43).

Out of 43 diabetic patients, 19 (44.18) number of persons had a gastro intestinal side effects , 9 (20.93) number of patients had hypoglycemic, 7 (16.27) number of patients had headache and 8 (18.6) number of patients had weight gain.

TABLE:19

GROUP	NO OF PERSONS	PERCENTAGE
GI SIDE EFFECTS	19	44.18
HYPOGLYCEMIC	9	20.93
HEADACHE	7	16.27
WEIGHT GAIN	8	18.6

20. DO YOU MISS ANTI DRUG (DM) IN THE LAST 4 WEEK (n=102).

Out of 102 diabetic patients, 70(68.6) number of patients miss anti-drug in last 4 weeks and 32(31.36) number of patients does not miss anti-drug in last 4 weeks.

TABLE:21

GROUP	NO OF PERSONS	PERCENTAGE
YES	70	68.6
NO	32	31.36

REASON FOR MISSING (n=70).

Out of 70 diabetic patients , 44 (62.48) number of patients forgetting to take a medication, 16(22.72) number of patients doesn't take a medication due to cost of the drug, 7(9.94) number of patients missing the dose because of side effects and 3(4.26) number of patients missing their dose because feel better.

TABLE:22

GROUP	NO OF PERSONS	PERCENTAGE
FORGETTING TO TAKE	44	62.48
COST OF THE DRUG	16	22.72
DRUG SIDE EFFECTS	7	9.94
FEEL BETTER	3	4.26

DO YOU EVER FEEL ANY NDESIRABLE SYMPTOMS WHILE MISSING DOSE (n=102).

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

Out of 102 number of diabetic patients, 46 (45.09) number of persons had the symptoms while missing the dose and 56 (54.90) number of persons doesn't had symptoms while missing the dose.

TABLE 23

GROUPS	NO OF PERSONS	PERCENTAGE
YES	46	45.09
NO	56	54.90

IF YES WHAT TYPE OF SYMPTOMPS DID YOU FEEL (n=46).

Out of 46 number of diabetic patients, 3 (6.52) members had dizziness, 1(2.17) members had weight gain, 3(6.52) patients had excess urinations and drowsiness, some peoples had sweating, poor wound healing, fatigue, dry mouth, frequent urinations, impaired visions, excessive thirst etc…

TABLE:24

GROUP	NO OF PERSON	PERCENTAGE
DIZZINESS	3	6.52
WEIGHT GAIN	1	2.17
EXCESS UNIRATION + DROWSINESS	3	6.52
SWEATING+WEIGHT GAIN+BLURRY VISION	1	2.17
FATIGUE+EXCESS URINATION	3	6.52
FAINTING	1	2.17
SWEATING+FATIGUE+POOR WOUND HEALING	1	2.17
WEIGHT GAIN+FATIGUE+POOR WOUND HEALING	1	2.17
FREQUENT URINATION+THIRST+WEIGHT LOSS	1	2.17
DRY MOUTH+FRQUENT URINATION	1	2.17
IMPAIRED VISION	1	2.17

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

ALLERGY+SHIVERING+EXCES S URINATION	**1**	**2.17**
EXCESS URINATION+SLOW WOUND HEALING	**4**	**8.69**
INCREASE SUGAR LEVEL+INFLAMMATION ON LEG+RASHES	**1**	**2.17**
EXCESS URINATION	**1**	**2.17**
SWELLING IN FEET	**1**	**2.17**

SWEATING	**1**	**2.17**
FATIGUE	**1**	**2.17**
DROWZINESS	**1**	**2.17**
SLEEPLESSNESS	**1**	**2.17**
SEDATION	**1**	**2.17**
BLURRY VISSION+SWEATING	**2**	**2.17**
PALPATATION	**1**	**2.17**
DRY MOUTH+ WEIGHT GAIN EXCESS URINATION	**1**	**2.17**
DRY MOUTH+DRY SKIN+DROWZINESS	**1**	**2.17**
DIZZINESS+SWEATING+EXCESS URINATION	**1**	**2.17**
FAST HEART RATE+SWEATING+EXCESS URINATION	**2**	**4.34**

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

FEELING SICK+INCREASE SUGAR LEVEL+CONFUTION	**1**	**2.17**
SWEATING+EXCESS URINATION	**1**	**2.17**
DROWSINESS+WEIGHT LOSS	**1**	**2.17**
SWEATING+SLOW WOUND HEALING	**1**	**2.17**
ALLERGY+SKIN RASHES	**1**	**2.17**
SWEATING+DIZZINESS	**1**	**2.17**
SHIVERING	**1**	**2.17**

HOW LONG THE SYMPTOMS LAST AFTER MISSING THE DOSE(n=46).

Out of 46 numbers of diabetic patients, 2 (4.34) number of persons had three hours symptoms, 5 (10.68) number of persons had symptoms one days after missing the dose, 10 (21.73) number of persons had one week symptoms after missing the dose.

TABLE:25

GROUP	NO OF PERSON	PERCENTAGE
1 HOUR	**1**	**2.17**
3 HOURS	**2**	**4.34**
4 HOURS	**1**	**2.17**
6 HOURS	**1**	**2.17**
1 DAY	**5**	**10.68**
2 DAYS	**3**	**6.52**
3 DAYS	**3**	**6.52**
4 DAYS	**1**	**2.17**
5 DAYS	**4**	**8.69**
6 DAYS	**2**	**4.34**
10 DAYS	**2**	**4.34**
1 WEEK	**10**	**21.73**
2 WEEKS	**2**	**4.34**

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

1 MONTH	**7**	**15.21**
2 MONTHS	**1**	**2.17**
3 MONTHS	**1**	**2.17**

ARE YOU COVID-19 VACCINATED (n=102).

TABLE:26

GROUP	NO OF PERSONS	PERCENTAGE
YES	**102**	**100**
NO	**-**	**-**

Out of 102 number of diabetic patients, All the diabetic patients are covid-19 vaccinated.

SEVERITY OF DISEASE AFTER VACCINATION (n=102).

Out of 102 diabetic patients, there are 16 (15.68) number of persons says that severity of disease after vaccination is high, 7 (6.86) number of patients says severity of medication is low after vaccination and 79 (77.42) number of persons says no changes in sugar level after vaccination.

TABLE:27

GROUP	NO OF PERSONS	PERCENTAGE
HIGH	**16**	**15.68**
LOW	**7**	**6.86**
NO CHANGE	**79**	**77.42**

DID YOU TAKE ANY OTHER MEDICATION (n=102).

Out of 102 diabetic patients, 54(52.92) number of persons taking other medication and 48(47.04) number of persons does not taking any other medication.

GROUP	NO OF PERSONS	PERCENTAGE
YES	**54**	**52.92**
NO	**48**	**47.04**

III. CONCLUSION AND DISCUSSION:

This study shows an absence of self-monitored blood glucose level reason that they cannot afford the glucometer. Commonest signs and symptoms of DM as mentioned by the patients were Polyurea, Polydipsia, Blurred vision and headache, Sweating and weakness.This study discovered therapeutic non compliance of drug therapy is due to forgetfulness, and cost of the drug.Forgetfulness is due to the low level of knowledge with regards to DM treatment. The treatment of DM is burden and therefore need the support from patient, family, Society, health providers, Psychologist and many

International Journal of Pharmaceutical Research and Applications
Volume 9, Issue 1 Jan-Feb 2024, pp: 1707-1721 www.ijprajournal.com ISSN: 2249-7781

others.Government subsidy to DM drugs could be one of the effective intervention to Non adherence to Diabetic Mellitus drug treatment regimen.To prevent diabetes related morbidity and mortality, there is an immense need of dedicated self-care behaviours in multiple domains, including food choices, physical activity, proper medications intake and blood glucose monitoring from the patients. Though multiple demographic, socio-economic and social support factors can be considered as positive contributors in facilitating self-care activities in diabetic patients, role of clinicians in promoting self-care is vital and has to be emphasized. Realizing the multi-faceted nature of the problem, a systematic, multi-pronged and an integrated approach is required for promoting self-care practices among diabetic patients to avert any long-term complications.

REFERENCE:

[1]. Marianna Karamanou, Athanase Protogerou, Gregory Tsoucalas, George Androutsos,and Effie Poulakou-Rebelakou Milestones in the history of diabetes mellitus: The main contributors World J Diabetes. 2016 Jan 10; 7(1): 1–7

[2]. Diabetes history- history of diabetes mellitus https://www.diabetes.co.uk/diabetes-history.html World J Diabetes. 2016 Jan 10; 7(1): 1–7

[3]. History of diabetes: early science, early treatment, insulin https://www.medicalnewstoday.com/articles/317484#early-science Medically reviewed by Deborah Weatherspoon, Ph.D., MSN — By Valencia Higuera — Updated on May4, 2023.

[4]. Diabetes mellitus and its complications in India, Ranjit Unnikrishnan, Ranjit Mohan Anjana and Viswanathan Mohan, VOLUME 12 | JUNE 2016 |

[5]. SaruarAlam1 ,Md.KamrulHasan2,3 ,SharifNeaz2,NazmulHussain2,Md.Faruk Hossain4 and TaniaRahman1 DiabetesMellitus:InsightsfromEpidemiology,Biochemistry, RiskFactors,Diagnosis,Complicationsand ComprehensiveManagement https://www.mdpi.com/journal/diabetology .

[6]. Adherencetoantidiabeticmedicationand factorsassociatedwithnon-adherence amongpatientswithtype-2diabetes mellitusintworegionalhospitalsin Cameroon LeopoldNdemngeAminde1,2* ,MaximeTindong3†,CalypseA.Ngwasiri2, 4†, JeannineA.Aminde5,8,TsiNjim6,7, AzingalaAjuaFondong8andNoahFongwen Takah Amindeetal.BMCEndocrine Disorders (2019) 19:35 https://doi.org/10.1186/s12902-019-0360-9

[7]. Basch E, Dacey C, Hammerness P, Hashmi S, Ulbricht C, Vora M, Weissner W (2006): Blessed thistle (Cnicus benedictus L.). Monograph Natural Standard Research Collaboration,U.S. National Library of Medicine, National Institute of Health/Department of Health and Human Services, Bethesda. Available at: http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-blessedthistle. html (2008/03/03).

[8]. InternationalDiabetesFederation.Diabetes Atlas: InternationalDiabetes Federation2015.

[9]. HuFB,SatijaA,MansonJE.Curbingthediabetespandemic: theneedfor globalpolicysolutions. Jama.2015;313(23):2319–20.

[10]. TivM,Viel JF,MaunyF,EschwegeE,WeillA,FournierC ,etal.Medication adherenceintype2diabetes: theENTREDstudy2007,aFrenchpopulation basedstudy.PLoSOne.2012;7(3):e32412.

[11]. RwegereraGM. Adherence toanti-diabeticdrugs amongpatientswith type2diabetesmellitus atMuhimbiliNationalHospital, Dar EsSalaam, Tanzania- across-sectional study. ThePanAfricanmedical journal. 2014; 17:252

[12]. AbebeSM,BerhaneY,WorkuA.Barrierstodiabetesmedicationadherence innorthWestEthiopia.SpringerPlus.2014;3:195.

[13]. Pascal IG,OfoeduJN,UchennaNP,NkwaAA,UchammaGU.Bloodglucose controlandmedicationadherenceamongadult type2diabeticNigerians attendingaprimaryCareClinicinUnder-resourcedEnvironmentofeastern Nigeria.NAmJMedSci.2012;4(7):310–5.

[14]. ElsousA,RadwanM,Al-SharifH,AbuMustafaA.Medicationsadhere

nce andassociatedfactorsamongpatientswithtype2diabetesmellitus inthe Gazastrip,Palestine.FrontEndocrinol.2017;8:100.

[15]. Jung,M.;Park,M.;Lee,H.C.;Kang,Y.H.;Kang,E.S.;Kim,S.K.Antidiabeticagentsfrom medicinalplants.Curr.Med.Chem. 2006,13,1203–1218. [CrossRef][PubMed]

[16]. Muzzin,P.;Eisensmith,R.C.;Copeland,K.C.;Woo,S.L.C.Hepaticinsulingeneexpression astreatm entfortype1diabetes mellitusinrats.Mol.Endocrinol.1997,11,833–837. [CrossRef]