

# A DESCRIPTIVE STUDY TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING PREVENTION OF COMPLICATIONS OF DIABETES MELLITUS AMONG A GROUP OF PATIENTS WITH DIABETES MELLITUS ATTENDING VARIOUS WARDS & OPDS IN SHRI MAHANT INDRESH HOSPITAL, PATEL NAGAR, DEHRADUN

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**Abstract:** “Diabetes mellitus is a heterogenous group of diseases characterized by chronic elevation of glucose in the blood. It arises because the body is unable to produce enough insulin for its own needs, either because of impaired insulin secretion, impaired insulin action or both”. The purpose of study was to assess the level of knowledge of patients with diabetes regarding prevention of complications of diabetes mellitus and providing a brief knowledge regarding the prevention of complications of diabetes mellitus through distributing pamphlets. This study is aimed at improving the knowledge of patients with diabetes regarding prevention of complications of diabetes mellitus. This study is a descriptive study conducted in patients with diabetes attending various wards and OPDs of Shri Mahant Indresh Hospital. About 100 patients were selected for self structured questionnaires method. Out of total 100 patients 5% patients having adequate knowledge, 61% patients having moderate knowledge, 34% patients having inadequate knowledge. The descriptive design was used for the study, the instrument used for the data collection is unstructured questionnaires which consist of demographic and knowledge questionnaires. The collected data was analysed by descriptive statistics

**Key Words:** Weaning, Primipara Mothers.

## 1. INTRODUCTION:

Diabetes is defined as a chronic, metabolic disease characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys and nerves. For people living with diabetes, access to affordable treatment, including insulin, is critical to their survival. [WORLD HEALTH ORGANIZATION]

**AVICENNA (~1000 AD) and THOMAS WILLIS-** Diabetes was considered a disease of the wealthy in ancient India, and was known as Madhumeha (sweet urine disease); it was observed that ants were attracted to the urine. The ancient Greeks coined the term "diabetes", meaning excessive urination with dehydration, but neither they nor the Romans appreciated that the urine contained sugar; "diabetes" was considered a kidney disease until the 18th century.

Type 1 diabetes results from the pancreas's failure to produce enough insulin due to loss of beta cells. This form was previously referred to as "insulin-dependent diabetes mellitus" (IDDM) or "juvenile diabetes". The cause is unknown.

Type 2 diabetes begins with insulin resistance, a condition in which cells fail to respond to insulin properly. As the disease progresses, a lack of insulin may also develop. This form was previously referred to as "non-insulin-dependent diabetes mellitus" (NIDDM) or "adult-onset diabetes". The most common cause is a combination of excessive body weight and insufficient exercise.

Prevention and treatment involve maintaining a healthy diet, regular physical exercise, a normal body weight, and avoiding use of tobacco. Control of blood pressure and maintaining proper foot care are important for people with the disease Type 1 diabetes must be managed with insulin injections. Type 2 diabetes may be treated with medications with or without insulin. Insulin and some oral medications can cause low blood sugar. Weight loss surgery in those with obesity is sometimes an effective measure in those with type 2 diabetes. Gestational diabetes usually resolves after the birth of the baby.

## 2. OBJECTIVES:

- To assess the knowledge level of diabetic patients regarding diabetes mellitus.
- To find the level of knowledge according to selected demographic variables.
- To distribute the pamphlet to educate the diabetic patients regarding prevention of complications of diabetes.

### 3. RESEARCH APPROACH:

Research approach is a plan and procedure that consist of the step of board assumption to detain methods of the data collection, analysis and interpretation, it is therefore based on the nature of data research problem being addressed, research approaches is essentially divided into two categories:

- Approaches of data collection.
- Approaches of data analysis or reasoning.

#### 3.1 RESEARCH DESIGN

Research design is a framework or blueprint for conducting the research project. It details the procedures necessary for obtaining the information needed to structure or solve research problem. In this research study descriptive study design is used. It is the most widely used research design as indicated by thesis, dissertations and research report of institution.

#### 3.2 SETTING OF THE STUDY

The study was conducted from Shri Mahant IndiresH Hospital, Patel Nagar, Dehradun.

#### 3.3 TARGET POPULATION

The target population in the present study includes the patient with diabetes mellitus attending various wards and OPDs in Shri Mahant IndiresH Hospital, Patel Nagar, Dehradun.

#### 3.4 SAMPLE

Sample may be defined as representative unit of target population which is to be worked upon by researchers during their study. In the present study the sample were 100 diabetic patients from various wards and OPDs of SMI Hospital.

#### 3.5 SAMPLE SIZE

100 samples who fulfilled the required characteristics of population.

#### 3.6 SAMPLING TECHNIQUE

Sampling refers to the process of selecting the portion of population to represent the entire population. Subjects were selected from the sampling frame to achieve non probability sampling. According to the sampling criteria, purposive sample technique was adopted 100 patients were selected.

#### 3.7 DATA COLLECTION PROCEDURE:

Self structured questionnaires methods consisting of two parts:-

##### Section-A Demographic variable

Items on demographic variables include age, gender, religion, education, occupation, type of family, marital status, personal habits, type of diet, previous source of information.

##### Section-B Structured questionnaire

Structured questionnaire on the knowledge among patients with diabetes regarding prevention of complications of diabetes mellitus in various wards and OPDs of SMI Hospital, Patel Nagar, Dehradun.

### 4. ANALYSIS & FINDINGS:

#### SECTION-A

Frequency and percentage distribution of diabetic patients according to selected demographic variables.

N=100

S.No.	GROUPS	FREQUENCY(f) N=100	PERCENTAGE(%)
1.	Age		
	• 25-35years	22	22%
	• 36-45years	23	23%

	<ul style="list-style-type: none"> <li>• 46-55years</li> </ul>	22	22%
	<ul style="list-style-type: none"> <li>• 56 and above</li> </ul>	33	33%
2.	Gender <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> <li>• Transgender</li> </ul>	40 60 0	40% 60% 0%
3.	Religion <ul style="list-style-type: none"> <li>• Hindu</li> <li>• Christian</li> <li>• Muslim</li> <li>• Others</li> </ul>	43 14 26 17	43% 14% 26% 17%
4.	Education <ul style="list-style-type: none"> <li>• Primary level</li> <li>• Secondary level</li> <li>• Higher secondary level</li> <li>• Graduation</li> <li>• No formal education</li> </ul>	22 33 15 22 8	22% 33% 15% 22% 8%

5.	Occupation <ul style="list-style-type: none"> <li>• Government</li> <li>• Private job</li> <li>• Housewife</li> <li>• Other</li> </ul>	22 38 17 23	22% 38% 17% 23%
6.	Type of family <ul style="list-style-type: none"> <li>• Joint family</li> <li>• Nuclear family</li> </ul>	65 35	65% 35%
7.	Marital status <ul style="list-style-type: none"> <li>• Married</li> <li>• Unmarried</li> <li>• Widow</li> <li>• Divorce</li> </ul>	70 13 9 8	70% 13% 9% 8%

8.	Personal habits <ul style="list-style-type: none"> <li>• Alcohol</li> <li>• Smoking</li> <li>• Tobacco</li> <li>• None</li> </ul>	20 17 4 59	20% 17% 4% 59%
9.	Type of diet <ul style="list-style-type: none"> <li>• Vegetarian</li> <li>• No-vegetarian</li> <li>• Mixed</li> </ul>	41 19 40	41% 19% 40%
10.	Previous source of information <ul style="list-style-type: none"> <li>• Television</li> <li>• Newspaper</li> <li>• Magazine</li> <li>• Others</li> </ul>	30 31 24 15	30% 31% 24% 15%

The percentage distribution of people with diabetes according to their age show that 22% of people of age group 25-35 years, 23% of people of age group 36-45 years, 22% of people of age group 46-55 years, 33% of people of age group 56 years and above. The percentage distribution of people with diabetes according to their gender show that 40% males ,60% females, and 0% transgender. The percentage distribution of people with diabetes according to their religion show that 43% Hindu, 14% Christians, 26% Muslims, 17% others. The percentage distribution of people with diabetes according to their educational status shows that 22% primary level, 33% secondary level, 15% higher secondary level, 22% graduation, 8% no formal education. The percentage distribution of people with diabetes according to their occupational status 22% government job, 38% housewife, 17% private job, 23% others. The percentage distribution of people with diabetes belongs to 65% joint family, 35% nuclear family. Majority of people with diabetes are 70% married, 13% unmarried, 9% widow, 8% divorce. The majority of people with diabetes 59% are none, 20% are alcoholic, 17% are smoking, 4% are tobacco. The percentage distribution of people with diabetes according to their dietary pattern as 41% are vegetaraian, 19% non-vegetarian, 40% mixed. The percentage distribution of people with diabetes according to their previous source of information shows that 30% television, 31% newspaper, 24% magazines, 15% others.

#### SECTION-B

#### Frequency & Percentage wise distribution of knowledge score among group of patients with diabetes regarding Diabetes Mellitus.

S.No.	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
1.	Inadequate knowledge (<10)	34	34%
2.	Moderate knowledge (11-20)	61	61%
3.	Adequate knowledge (21-30)	5	5%

The percentage distribution of patients with diabetes on the level of knowledge score regarding Diabetes Mellitus. 34% people were having inadequate knowledge . 61% people were having moderate knowledge. 5% people were having adequate knowledge.

## SECTION-C

Frequency and percentage wise distribution of knowledge score among patients with diabetes according to their demographic variables.

LEVEL OF KNOWLEDGE	INADEQUATE		MODERATE		ADEQUATE	
	(f)	%	(f)	%	(f)	%
Age						
• 25-35 years	4	4%	16	16%	2	2%
• 36-45 years	6	6%	15	15%	2	2%
• 46-55 years	9	9%	13	13%	0	0%
• 56 and above	15	15%	17	17%	1	1%
Gender						
• Male	17	17%	22	22%	1	1%
• Female	17	17%	39	39%	4	4%
• Transgender	0	0%	0	0%	0	0%
Religion						
• Hindu	13	13%	28	28%	2	2%
• Christian	3	3%	11	11%	0	0%
• Muslim	8	8%	16	16%	2	2%
• Others	10	10%	6	6%	1	1%
Education						
• Primary level	3	3%	18	18%	1	1%
• Secondary level	14	14%	18	18%	1	1%
• Higher secondary level	6	6%	9	9%	1	1%
• Graduation	8	8%	11	11%	2	2%
• No formal education	3	3%	5	5%	0	0%
Occupation						
• Government job	5	5%	15	15%	3	3%
• Private job	9	9%	9	9%	1	1%
• Housewife	13	13%	24	24%	0	0%
• Others	7	7%	13	13%	1	1%
Type of family						
• Joint family	25	25%	37	37%	3	3%
• Nuclear family	9	9%	24	24%	2	2%

Marital status						
• Married	21	21%	45	45%	4	4%
• Unmarried	4	4%	8	8%	1	1%
• Widow	4	4%	5	5%	0	0%
• Divorce	5	5%	3	3%	0	0%
Personal habits						
• Alcohol	8	8%	10	10%	2	2%
• Smoking	5	5%	9	9%	1	1%
• Tobacco	3	3%	1	1%	0	0%
• None	18	18%	41	41%	2	2%
Type of diet						
• Vegetarian	13	13%	25	25%	3	3%
• Non-vegetarian	4	4%	15	15%	0	0%
• Mixed	17	17%	21	21%	2	2%
Previous source of information						
• Television	13	13%	17	17%	1	1%
• Newspaper	8	8%	20	20%	2	2%
• Magazine	5	5%	15	15%	2	2%
• Others	8	8%	9	9%	0	0%

A. The percentage distribution of patients with diabetes on their level of knowledge according to age group:-

In age group 25-35 years (4%) inadequate knowledge, (16%) moderate knowledge, (2%) adequate knowledge. In age group 36-45 years (6%) inadequate knowledge, (15%) moderate knowledge, (2%) adequate knowledge. In age 46-55 years (9%) inadequate knowledge, (13%) moderate knowledge, (0%) adequate knowledge. In age group 56 years and above (15%) inadequate knowledge, (17%) moderate knowledge, (1%) adequate knowledge.

B. The percentage distribution of patients with diabetes on their level of knowledge according to their gender:-

A males have (17%) inadequate knowledge, (22%) moderate knowledge, (1%) adequate knowledge. A females have (17%) inadequate knowledge, (39%) moderate knowledge, (4%) adequate knowledge. A transgender have (0%) inadequate knowledge, (0%) moderate knowledge, (0%) adequate knowledge.

C. The percentage distribution of patients with diabetes on their level of knowledge according to their religion:-

In Hindu (13%) inadequate knowledge, (28%) moderate knowledge, (2%) adequate knowledge. In Christian (3%) inadequate knowledge, (11%) moderate knowledge, (0%) adequate knowledge. In muslim (8%) inadequate knowledge, (16%) moderate knowledge, (2%) adequate knowledge. In others (10%) inadequate knowledge, (6%) moderate knowledge, (1%) adequate knowledge.

D. The percentage distribution of patients with diabetes on their level of knowledge according to their education:-

In primary level (3%) inadequate knowledge, (18%) moderate knowledge, (1%) adequate knowledge. In secondary level (14%) inadequate knowledge, (18%) moderate knowledge, (1%) adequate knowledge. In higher secondary level (6%) inadequate knowledge, (9%) moderate knowledge, (1%) adequate knowledge. In graduation

(8%) inadequate knowledge, (11%) moderate knowledge, (2%) adequate knowledge. In no formal education (3%) inadequate knowledge, (5%) moderate knowledge, (0%) adequate knowledge.

E. The percentage distribution of patients with diabetes on their level of knowledge according to their occupation:-

In government job (5%) inadequate knowledge, (15%) moderate knowledge, (3%) adequate knowledge. In private job (9%) inadequate knowledge, (9%) moderate knowledge, (1%) adequate knowledge. In housewife (13%) inadequate knowledge, (24%) moderate knowledge, (0%) adequate knowledge. In others (7%) inadequate knowledge, (13%) moderate knowledge, (1%) adequate knowledge.

F. The percentage distribution of patients with diabetes on their level of knowledge according to their family background:-

In joint family (25%) inadequate knowledge, (37%) moderate knowledge, (3%) adequate knowledge. In nuclear family (9%) inadequate knowledge, (24%) moderate knowledge, (2%) adequate knowledge.

G. The percentage distribution of patients with diabetes on their level of knowledge according to their marital status:-

In married (21%) have inadequate knowledge, (45%) have moderate knowledge, (4%) adequate knowledge. In unmarried (4%) have inadequate knowledge, (8%) have moderate knowledge, (1%) adequate knowledge. In widow (4%) have inadequate knowledge, (5%) have moderate knowledge, (0%) adequate knowledge. In divorce (5%) have inadequate knowledge, (3%) have moderate knowledge, (0%) adequate knowledge.

H. The percentage distribution of patients with diabetes on their level of knowledge according to their personal habits:-

(8%) of alcoholic consuming people have inadequate knowledge, (10%) have moderate knowledge, (2%) have adequate knowledge, (5%) of smoke consuming people have inadequate knowledge, (9%) have moderate knowledge, (1%) have adequate knowledge. (3%) of tobacco using people have inadequate knowledge, (1%) have moderate knowledge, (0%) have adequate knowledge. (18%) of people who do not take any substance have inadequate knowledge, (41%) have moderate knowledge, (2%) have adequate knowledge.

I. The percentage distribution of patients with diabetes on their level of knowledge according to their dietary pattern:-

In vegetarian (13%) people have inadequate knowledge, (25%) have moderate knowledge, (3%) have adequate knowledge. In non-vegetarian (4%) have inadequate knowledge, (15%) have moderate knowledge, (0%) have adequate knowledge. In mixed (17%) people have inadequate knowledge, (21%) have moderate knowledge, (2%) have adequate knowledge.

J. The percentage distribution of patients with diabetes on their level of knowledge according to their previous source of information:-

People using television (13%) having inadequate knowledge, (17%) have moderate knowledge, (1%) have adequate knowledge. People using newspaper (8%) having inadequate knowledge, (20%) having moderate knowledge, (2%) having adequate knowledge. People using magazine (5%) having inadequate knowledge, (15%) having moderate knowledge, (2%) having adequate knowledge. People using other sources (8%) having inadequate knowledge, (9%) have moderate knowledge, (0%) having adequate knowledge.

## 5. RECOMMENDATION:

- A future study can be conducted in community setting.
- A similar study can be undertaken on large scale.
- A future can be performed on another age group peoples.
- A study can be conducted for the further explanatory fields of the diabetes mellitus.
- The study can be replicated using the large sample to validate the finding and make generalization.

## 6. CONCLUSION:

A descriptive study was undertaken among knowledge regarding prevention of complications of diabetes mellitus among a group of people of diabetes attending various wards and OPDs in Shri Mahant Indires Hospital, Patel Nagar, Dehradun with the objective to assess the level of knowledge regarding prevention of complications of diabetes among a group of people with diabetes mellitus attending various wards and OPDs in Shri Mahant Indires Hospital, Dehradun. 100 samples were selected by unstructured questionnaire.

A conclusion was derived from the findings of the study. It can be concluded that 34% patients with diabetes having inadequate knowledge, 61% patients with diabetes having moderate knowledge, 5% patients with diabetes having adequate regarding prevention of complications of diabetes mellitus among the group of diabetes patients attending various wards and OPDs in Shri Mahant Indires Hospital, Patel Nagar, Dehradun.

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