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## **Research Article**

## A STUDY TO ASSESS THE KNOWLEDGE ON COMPLICATIONS OF DIABETES MELLITUS AMONG THE PATIENTS WITH DIABETES IN A SELECTED COMMUNITY THRISSUR

## Jyithikrishna K O<sup>1</sup>., Livya Vincent<sup>2</sup>., Minnu K Paul<sup>3</sup>., Neethu C Lazar<sup>4</sup>., Reshma P Sabu<sup>5</sup>., Rincy A V<sup>6</sup>., Saniya Eldhose<sup>7</sup>., Sharan K Varghese<sup>8</sup>., Sruthykrishna M B<sup>9</sup>., Steffy John<sup>10</sup> and Asha Praveen<sup>11</sup>

<sup>1,10</sup>Aswini College of Nursing, Thrissur

<sup>11</sup>Department of Medical Surgical nursing, Aswini College of Nursing, Thrissur

ARTICLE INFO	ABSTRACT	
Article History: Received 18 <sup>th</sup> May, 2016 Received in revised form 10 <sup>th</sup> June, 2016 Accepted 06 <sup>th</sup> July, 2016 Published online 28 <sup>th</sup> August, 2016	Diabetes mellitus can be associated with serious complications, but people with diabetes can take preventive measures to reduce the likelihood of such occurrences. There are mainly two types of complications of diabetes mellitus: acute and chronic complications. A non-experimental descriptive survey was done to determine the knowledge related on complications of diabetes mellitus among patients with diabetes mellitus in Nadathara Panchayath, Thrissur. The sample size was 30 patients with diabetic mellitus. Non probability purposive sampling technique was adapted for the selection of samples. The data was collected by using structured knowledge questionnaire with interview technique. The result shows that majority (66.67%) of the samples had moderate level knowledge about complications of diabetes mellitus. So educational initiatives are needed to encourage the patient to seek early medical attention and raise awareness about complications of diabetic mellitus as a part of primordial preventive measure.	
Key Words:		
Complications, Diabetes Mellitus, Knowledge.		

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## **INTRODUCTION**

Diabetes mellitus is a serious health problem throughout the world. It is a chronic systemic disease characterized by either a deficiency of insulin or a decreased ability of the body to use insulin. The acute complications of diabetes mellitus include hyperosmolar hyperglycemic syndrome, hypoglycemia and diabetes ketoacidosis. And the chronic complications of diabetes mellitus are divided into two categories: macro vascular complications and micro vascular complications. Macro vascular complications include disease of large and medium sized blood vessels. It includes cerebrovascular diseases, coronary artery diseases and peripheral vascular diseases. Micro vascular complications include diabetic retinopathy, diabetic nephropathy, diabetic neuropathy, complications of feet and lower extremities and integumentary complications. WHO estimate that in 2012, approximately 1.5 million death were directly caused by diabetes, and more according to world health organization in November 2014, about 374 million people have diabetes, 80% these death occurred in low and middle income area.

#### Statement of Problem

A study to assess the knowledge on complications of diabetes mellitus among the patients with diabetes in a selected community Thrissur.

#### **Objectives**

- To assess the knowledge on complications of diabetes mellitus among diabetic patients.
- To associate the knowledge on complication of diabetes mellitus among diabetic patients with their selected demographic variables.

#### Assumptions

Diabetes patients have inadequate knowledge regarding complication of DM

#### Hypothesis

 $H_{1:}$  there will be a significant association between levels of knowledge regarding complications of diabetes mellitus with their selected demographic variables

<sup>\*</sup>Corresponding author: Jyithikrishna K.O

Aswini College of Nursing, Thrissur

## METHODOLOGY

#### **Research** approach

Non experimental approach, to assess the knowledge on complications of diabetes mellitus among patients with diabetes.

#### Research design

Descriptive survey design.

#### **Research setting**

the study was conducted among patients with diabetes mellitus, Nadathara panchayath, Thrissur.

#### **Population**

Population of the study comprised of patient with Diabetes mellitus, who are residing in Nadathara.

#### Sample and sample size

30 patients with Diabetes mellitus in Nadathara Gramapanchayath.

#### Criteria for Selection Sample

#### Inclusion criteria

Patient with DM who were:

- With diabetes mellitus and in treatment for more than one year
- Willing to participate in the study
- Able to read and write Malayalam

#### Exclusion criteria

Patient with DM who were having

- Not willing to participate
- Unconscious
- Pregnant

#### Sampling technique

Purposive sampling technique

#### **Development** of tool

The tool was developed based on past clinical experience of investigator, reviewing the literature, in guidance of and consultation with subject experts.

#### Description of tool

The research tools consist of 2 sessions.

Section A: socio demographic data Section B: Structured knowledge questionnaires on complications of diabetes mellitus.

#### Validity of tool

The content validity was obtained by experts in the field of nursing and diabetology.

#### Data collection procedure

The data collection was done after getting permission from the medical officer, Nadathara PHC, Thrissur. We started the data collection from 10-06-15 to 15-06-15. Samples were selected by purposive sampling technique. After obtaining consent,

appropriate orientation was given to the samples. First investigators collect the demographic data. Then structured knowledge Questionnaire was distributed to the estimated sample size of 30 patients. Provided 30 minutes to complete the questionnaire, clarification of doubts, getting respondance for appropriate answer. The questionnaire was completed in the presence of the investigator to avoid bias in the collection of data.

#### Plan for data analysis

Data were organized, tabulated and analyzed based on the objectives of the study by using descriptive and inferential statistics.

#### Finding of the Study

#### Section A: Distribution of samples according to sociodemographic variables

 
 Table 1 Distribution of socio- demographic characteristics of subjects

CL N	Demographic	Frequency	Percentage	
<u>SI. NO.</u>	Variables	(1)	(%)	
1	Age	0	0	
	a. $<30$ years	0	0	
	5.30-45 years	12	0.0/	
	c. 40-00 years $d > 60$ years	12	40 52 22	
2	d. > 60 years	10	33.33	
2	a Male	11	36.67	
	a. Male	10	63 33	
3	Religion	17	05.55	
5	a Hindu	18	60	
	h Christian	10	33 33	
	c Muslim	2	6 67	
4	Education	2	0.07	
	a Illiterate	2	6 67	
	b. Primary Education	21	70	
	c Higher secondary	5	16 67	
	d. Graduate	2	6.67	
5	Occupation	-	0.07	
	a. Sedentary worker	22	73.34	
	b. Moderate worker	7	23.33	
	c. Heavy worker	1	3.33	
6	Level of income			
	a. Low class	13	43.33	
	b. Middle class	15	50	
	c. High class	2	6.67	
7	Diet			
	a. Vegetarian	9	30	
	<li>b. Non vegetarian</li>	21	70	
8	Duration of treatment			
	a. 1-5 yrs	9	30	
	b. 6-10 yrs	10	33.33	
	c. >10 yrs	11	36.67	
9	Source of information			
	a. Mass media	1	3.33	
	<ul> <li>Family member</li> </ul>	6	20	
	<ul> <li>c. Health care workers</li> </ul>	22	73.33	
	d. Others	1	3.34	
10	History of alcoholism	_		
	a. Yes	7	23.33	
	b. No	23	76.67	
11	History of smoking			
	a. Yes	2	6.67	
	b. No	28	93.33	
12	Weight of patient			
	a. $<40 \text{ kg}$	1	3.33	
	b. 40-50kg	6	20	
	c. 51-60kg	8	26.67	
	a. > 60 kg	15	50	

One of the 30 samples 53.33% of them above 60 years in the age group, 63.33% were females, 70% were primary education, 73.34% were sedentary worker and 70% were non vegetarian. 36.67% of samples had >10 years of treatment and majority of the samples got health informations through health care workers. Very few of the samples had the history of alcoholism and smoking (7% and 2%). Most of the samples had the >60 kg of the weight.

# Section B: Distribution of samples based on level of knowledge on complication of DM

 
 Table 2 Level of knowledge on complication of diabetes mellitus



Figure 1 Simple pyramid showing level of knowledge of subjects on complication of DM

The table 2 and figure 1 shows that majority samples 66.67% were having moderate knowledge, 20% were having inadequate knowledge and 13.33% were having adequate knowledge on complications of diabetes mellitus.

#### Section C

There was no significant association between the knowledge score and selected demographic variables. So the null hypothesis was accepted and the research hypothesis  $H_1$  was rejected.

## CONCLUSION

This study result shows that majority of the samples had inadequate knowledge regarding prevention of complications of diabetic mellitus. It gives an insight to the nurses regarding existing practice in preventing the complications of DM in community. So based on this the community health nurses can organize various health education programmes on prevention of complication of diabetic mellitus.

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