

# A Study to Assess the Knowledge Regarding Home Care Management on Diabetes Mellitus among Adults in a Selected Community Area at Bangalore

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**Received:** February 19, 2020

**Accepted:** June 10, 2020

**Published:** July 2, 2020

**Abstract:** **Introduction:** Diabetes is an “ice berg” disease. According to recent estimates the prevalence of diabetes mellitus in adults was around 4% worldwide. This means that over 143 million persons was affected. It is projected that the disease prevalence will be 5.4% by the year of 2025 with the global diabetic population reaching 300 millions. Whereas in the developer world the majority of diabetes are aged 65 years and above. It was 45 to 65 years in the developing world. **Objective of the study:** 1) To assess the knowledge regarding home care management among adults in a selected community. 2) To find out association between the knowledge on the selected demographic variable such as age, sex, education, religion, occupation, income and marital status. **Material and methods:** Descriptive design was used for the study. The setting of the study was in konnakunte community, Bangalore. The duration of the study was 4 weeks. The duration of 30 minutes will be spend per each subject. Convenient sampling techniques will be used for the study. The sample size was 20. **Results:** The finding of the study shows that the majority of respondents 14(70%) have moderate knowledge and 6(30%) respondents have adequate knowledge and no respondents have inadequate knowledge regarding diabetes mellitus. **Conclusion:** Thus, the researcher find that there is a needs to study Diabetes Mellitus among the community and prevent the occurrence of Diabetes Mellitus in the community. **Keywords:** Diabetes mellitus, adults.

## Introduction

Diabetes is a chronic disease caused by inherited and /or acquired deficiency in production of insulin by the pancreas or in its effects. The worldwide prevalence of diabetes is 4% (1995) which will be 5.4% in 2025 [1]. In India, thirty-five million people have diabetes—a number expected to more than double by 2025, disproportionately affecting working-age people [2]. The economic impact of this increase could be devastating to India’s emerging economy. Studies in India estimate that, for a low-income Indian family with an adult with diabetes, as much as 25% of family income may be devoted to diabetes care. It is believed that patient's knowledge of self-care is the key to achieving therapeutic goals in ambulatory care [3]. The importance of self-management skills in diabetes care has been stressed by the American Diabetes Association. Patients with diabetes, however, often lack sufficient knowledge about their disease and thus frequently have poor self-management skills. Studies have indicated that poor health literacy may be a particularly important barrier to chronic disease care and good health outcomes [4]. It is imperative that the patients and key members of their families understand the basic facts about diabetes, such as the importance of maintaining good glycaemic control and the individual treatment schedules and preventive measures in the control of diabetes

mellitus. This study attempted to assess the knowledge of diabetes and its complications among patients attending a primary care diabetes clinic in Sri Lanka [5]. This was a descriptive, cross-sectional study conducted in the outpatient diabetes clinics of Moratuwa district hospital, a primary health care hospital in Moratuwa city, in the Western province of Sri Lanka [6]. This hospital provides services free of charge, and the target patient population includes people living in close proximity to the hospital.

Patients usually attend the clinic once a month. All patients with diabetes are treated by the primary care medical practitioners of the hospital [7]. The usual care consists of starting with oral hypoglycaemic agents with assessment of control and combining oral hypoglycaemic as necessary [8]. Insulin may be added as necessary for adequate control. Patients attend the clinic once a month and drugs are issued free of charge as available [9]. Patients have to buy unavailable drugs at their own cost. Fasting blood sugar is determined once a month at the hospital laboratory [10].

### **Objectives of the study**

1. To assess the knowledge among adults regarding diabetes mellitus.
2. To find the association between knowledge regarding diabetes mellitus with selected demographic variables.

### **Methodology**

A descriptive research design was adopted. Data was collected from adults in selected community areas at Bangalore. An evaluative research approach was used. This study will be conducted in selected community area in Bangalore. The population of the study comprises of adults in selected community areas at Bangalore. The total sample of the study consists of 20 adults in a selected community area. Simple random sampling technique was adopted to draw the sample. A structured Questionnaire is drafted for this purpose and the relevant data will be collected from the sample units.

### **Results**

**Table 1. Frequency and percentage distribution of respondents by Age (N=20)**

<b>Demographic variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>1. Age</b>		
30-40	9	45
40-50	5	25
50-60	6	30
<b>2. Education</b>		
Primary	08	40
Secondary	10	50
Post graduate	02	10
<b>3. Occupation</b>		
Daily wages	07	35
Government	04	20
Private	09	45
<b>4. Type of family</b>		
Nuclear	11	55
Joint	02	10
Extended	07	35
<b>5. Income</b>		
5000-10000	11	55
10000-15000	07	10
15000-20000	02	35

<b>6. Type of Diet</b>		
Veg	03	15
Mixed	17	85
<b>7. Type of house</b>		
Pucca	08	40
Kuchha	05	25
Semi pucca	07	35

Table 1 indicates the distribution of respondents by age where, majority of the respondents 9(45%) belong to the age group of 30-40 years. majority of respondents 10(50%) have secondary education, majority of respondents 9(45%) have private job. Majority of respondents 11(55%) belongs to nuclear family. majority of respondents 11(55%) belongs to the categories of 5000-10000 income, where majority 17(85%) belong to mixed diet, where 8(40%) respondents have pucca house.

**Table 2. Distribution of respondents on knowledge level on diabetes mellitus**

Knowledge level	Category	Respondents	
		Frequency	Percentage
Inadequate	$\leq 50\%$ score	00	00
Moderately adequate	51-75%	14	70%
Adequate	$>75\%$	06	30%
<b>Total</b>		20	100%

Table 2 shows that the majority of respondents 14(70%) have moderate knowledge and 6(30%) respondents have adequate knowledge and no respondents have inadequate knowledge regarding diabetes mellitus.

**Table 3. Association between knowledge score with selected demographic variables.**

Demographic variable	Categories	Knowledge score of respondents	Chi-square value	df	p-value	Inference
Age	30-40	09	0.794	2	<0.05	NS
	40-50	06				
	50-60	05				
Education	Primary	08	1.071	2	>0.05	NS
	Secondary	10				
	Post graduate	02				
Occupation	Daily wages	07	1.633	2	<0.05	NS
	Government	04				
	Private	09				
Type of family	Nuclear	11	1.416	2	<0.05	NS
	Joint	02				
	Extended	07				
Income	5000-10000	11	1.447	2	<0.05	NS
	10000-5000	07				
	15000-0000	02				
Type of diet	Veg	03	0.019	1	<0.05	NS
	Mixed	17				
Type of house	Pucca	08	0.34	2	<0.05	NS
	Kuchha	05				
	Semi pucca	07				
$\chi^2$ (0.05, 2df) =5.991, $\chi^2$ (0.05, 1df)						

Table 3 shows the association of level of pre-test knowledge with selected demographic variables. It is evident from the above table that there is no significant association with the selected variables.

### **Conclusion**

The study concluded that there is a need of educating the community on the home basic management on diabetes mellitus among adult so that many of the community who are suffering from the diabetes mellitus can be prevented from further complication. There is a need to have an awareness programme among the community to educate more on preventive aspects of diabetes mellitus. Hence the researcher felt the needs of the nurse to develop some protocol to reach to community and spread the strategy of prevention on diabetes mellitus.

### **Conflict of interest**

The authors declare no conflicts of interest.

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**Citation:** Devi LD, Lakshmi Devi N. A Study to Assess the Knowledge Regarding Home Care Management on Diabetes Mellitus among Adults in a Selected Community Area at Bangalore. *Int J Rec Innov Med Clin Res*. 2020;2(3):18-21.

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