

# A Study to Assess the Effectiveness of Educational Module Regarding Diabetes Mellitus Among Adults In A Selected Rural Area At Thoothukudi.

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**Abstract:** Cases of diabetes in Asian countries have increased significantly over the last several decades. People in Asian nations adopting more Western eating practices and lifestyle trends. **World Health Organisation** says about 422 million people worldwide have diabetes, the majority living in low-and middle-income countries, and 1.6 million deaths are directly attributed to diabetes each year. Globally 95% of the diseased subjects are found to have Type 2 Diabetes and still most of them are undiagnosed. **The International Diabetes Federation (IDF)** estimated that the total number of diabetic clients in the world is 463 million (2019) and this may increase to 578 million by the year 2030 and 700 million in 2045. Every 10 seconds one person is dying with Diabetes. Two new diabetic cases are being identified in every 10 seconds in the world. It is estimated that 7 million new diabetic cases will be identified by 2025. So this is giving an alarm to health care sectors. In **India** there are 72.96 million cases of Diabetes in adult population. In urban areas the prevalence is from 10.9 % to 14.2 % and in rural areas it is from 3 % to 7.8 %. The higher prevalence is among individuals aged over 50 years. This study was intended to assess the effectiveness of educational module regarding diabetes and to determine the association with selected demographic variables. Experimental research design was adopted and the samples were selected by using purposive sampling technique. It was observed that 28.6% of vegetarians had Diabetes and 46.1% of Non-vegetarians had Diabetes. With regard to knowledge 62 % had inadequate knowledge and 12 % had adequate knowledge. The existing knowledge was significantly associated with education and socioeconomic status.

**Key words:** knowledge, Prevalence, Vegetarian, Non-vegetarian, Diabetes

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## I. Introduction

The sweet disease which is causing dangers to human population is alarmingly increasing in the world. India continues to be the hub of Type 2 Diabetes, adding to the global burden of the disease. 80% of the persons with Type 2 diabetes in the world will be present in the developing countries like India. In **2019, The Ministry of Health and Family Welfare** conducted National Diabetes and Diabetic Retinopathy survey and found that the prevalence of Diabetes is 11.8% in people over the age of 50. In Urban areas, for every two persons who knew their diabetic condition, there was one person who was not aware of it. In the rural areas, the ratio was one is to one. It's not just the problem of awareness; it purely depends on the steep increase in life style related problems. Because of the adoption of unhealthy practices India is marching forward to acquire various non-communicable diseases than communicable diseases.

Managing Diabetes is becoming a day today grapple. Though many of us are aware that diet prevents and cures Diabetes, we still fuel ourselves with processed foods, preservatives and additives. **Hippocrates** said "Let food be thy medicine and medicine be thy food. **Bible** says in Genesis 1:29 God has given us every herb that yields seed which is on the face of all the earth and every tree whose fruit yields seed to you it, shall be for food"

**June 21, 2019 Eswarappa.S; K Ramu; I.Clement** conducted an evaluative study to assess the effectiveness of structured teaching program among 60 samples with type II diabetes in Tumkur, Andhrapradesh. Before teaching the samples had inadequate knowledge and the post test findings revealed that there was a remarkable improvement in the knowledge after the administration of structured teaching program. So they concluded that teaching modules are effective in terms of improving the knowledge of clients with type II diabetes.

## II. Material And Method

The study was conducted in a rural area called Jambulinga puram Which is 25 km away from Thoothukudi, Tamilnadu. The samples were selected by purposive sampling method and data was collected after obtaining administrative permission from the panchayat president,. The tool used in the present study was a semi structured questionnaire.. The data was collected by door to door survey and before data collection the purpose of the study was explained to each subject and oral consent was obtained. Pre test knowledge was assessed by using questionnaire and individual teaching was given.After fifteen days post test was done. The data obtained were analyzed by using Inferential and Differential statistics.

## III. Results

### FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG CLIENTS WITH DIABETES

(N=70)

Demographic Variables	Sub Variables	Experimental group-I (n <sub>1</sub> =70)	
		f	%
AGE (IN YEARS)	30-40	29	41.43
	41-50	21	30
	51-60	21	28.57
GENDER :	Male	34	48.57
	Female	36	51.43
MARITAL STATUS:	Married	66	94.29
	Single	0	0
	Widow	4	5.71
NUMBEROF CHILDREN:	One	6	8.57
	Two	31	44.29
	More than two	33	47.14
RELIGION:	Hindu	47	67.14
	Muslim	19	27.14
	Christian	4	5.71
EDUCATION:	Primary education	43	61.43
	Middle	0	0
	High school	25	35.71
	Higher secondary	0	0
	Graduate	2	2.86
	Illiterate	0	0
OCCUPATION :	Clerical work	6	8.57
	Self employment	9	12.86
	Coolie	38	54.29
	Unemployed	17	24.29
	<Rs.5000		

FAMILY INCOME PER MONTH:		25	35.71
	Rs.5001-10000	30	42.86
	Rs.>10000	15	21.43

**TABLE 2**  
**Frequency and percentage distribution of clinical variables of clients with type 2 diabetes mellitus**

Clinical variables	Sub variables	(n=70)	
		f	%
EXERCISE :	Yes	0	0
	No	70	100
SMOKING :	Yes	26	37.14
	No	44	62.86
ALCOHOL :	Yes	26	37.14
	No	44	62.86
BMI :	Under weight (<18.5)	0	0
	Normal (18.5-24.9)	4	5.71
	Over weight (25-29.9)	22	31.34
	Obese (30 & above)	44	62.86
CO MORBIDITY ILLNESS	CVS Disorder	26	37.14
	CNS Disorder	0	0
	Renal Disorder	5	7.14
	Eye Disorder	1	1.43
	Others	0	0
	No illness	37	52.86

**FINDINGS RELATED TO KNOWLEDGE SCORE ON DIABETES MELLITUS**

The study results revealed that knowledge of thirty four (48.57%) diabetic patients was poor, 26 (37.14%) patients had average knowledge and only 10 (14.29%) of the patients had good knowledge regarding diabetes mellitus.

**FINDINGS RELATED TO EFFECTIVENESS OF EDUCATIONAL MODULE ON KNOWLEDGE SCORE ON DIABETES MELLITUS**

The mean pretest knowledge score was 15.57+/- 4.91 and post test knowledge score was 15.54+/- 4.82. The study was concluded that the planned education programme is effective among clients with diabetes and which enhances knowledge.

**ASSOCIATION BETWEEN PRE TEST KNOWLEDGE AND DEMOGRAPHIC VARIABLES**

There was association between knowledge and education and there was no significant association between knowledge and age, gender, Marital status, number of children, occupation , family income and family history of diabetes.

**IV. Discussion**

The study findings revealed that most of the people are still not aware of the silent killer disease. Still it is an iceberg of disease. Public must be given education about diabetes to halt the progress of this disease. The teaching module proved to increase the knowledge of people. Thus the study concluded that teaching programme played a vital role in improving the knowledge of the patient with diabetes.

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