

**EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON SELECTED  
COMPLICATIONS OF DIABETES MELLITUS AND ITS MANAGEMENT IN  
TERMS OF KNOWLEDGE AND ATTITUDE AMONG DIABETIC PATIENT**

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**ABSTRACT**

**Background of the study:** Diabetes mellitus is a major universal health problem afflicting human societies at all stages of development. Globally there are at least 30 million diabetes; the majority of them lack even the rudiments of care. The Hindustan times news paper stated that the total number of people suffering in the country (India) as a whole is estimated at 63 million. the healthcare burden of managing it is huge and is expected to increase further with rapid urbanization and life style changes occurring in the country. There are several challenges faced by the country in managing diabetes like increasing prevalence in urban and rural areas, lack of disease awareness among the population, limited healthcare facilities.

**Objectives of the study:**

The objectives of the study was to to assess the knowledge and attitude of diabetic patient on selected complications of diabetes and its management before and after administration of planned teaching program and to find out association of pre test knowledge score and attitude score of selected complications of diabetes and its management among diabetes mellitus client with selected demographic variable.

**Material and method:** A pre experimental research approach with pre test post test design was used. Total 40 Subjects were selected by using convenient sampling technique. The samples were diabetic patients admitted in selected hospitals. Participants were informed about the study & written consent was taken prior to participation. Pre test and post test was conducted using structured knowledge questionnaires and observational checklist to assess

knowledge and attitude of diabetic patients. The data was analyzed by using inferential and descriptive statistics.

**Result:** The mean pre test knowledge score of samples on selected complication of diabetic mellitus and its management was 12.17 where as mean post test knowledge score was 24.98. The mean pre test attitude score was 50.67 and the mean post test attitude score was 72.2. Significance of the difference between pre test and post test knowledge and attitude was statistically tested using paired 't' test and it was found significant at 0.05 level.

**Conclusion:** The purpose of this study was to assess the effectiveness of planned teaching programme on knowledge and attitude of diabetic patient on selected complications of diabetes and its management. There was significant increase in the knowledge of the diabetic patient after the administration of the planned teaching programme. There was no any significant association found between with attitude score and demographic variables. Thus it was concluded that there was significant association between knowledge score and the selected demographic variables. No any association found between Attitude score and the selected demographic variables.

**Key Words:** *diabetes mellitus, diabetic patient,*

## **INTRODUCTION**

Diabetes mellitus, particularly type II, may be a major public health concern worldwide. According to WHO, there will be an alarming increase in the population with type II diabetes mellitus, both in the developed and developing countries over the next two decades.<sup>1</sup> Diabetes mellitus contributes significantly to premature death and prolonged ill-health and is major cause of disability through its complications of retinopathy, nephropathy, neuropathy and large blood vessel disease.<sup>2</sup> Most of the individuals, healthy and ill, are now demanding greater control of their health care. Individuals want to identify their self care needs establish their learning goals and evaluate their self care behavior. The basic component of self care applies to all diabetic patients, but the care must be designed to fit each person individual's needs and habits.<sup>3</sup> Diabetes was estimated to be responsible for 109 thousand deaths, 1157 thousand years of life lost and for 2263 thousand disability adjusted life year in India during 2004. However, health systems haven't matured to manage diabetes effectively. Awareness about

and understanding of the disease is less than satisfactory among patients, leading to delayed recognition of complications.<sup>4</sup>

## **OBJECTIVES**

1. To assess the knowledge of diabetic patient on selected complications of diabetes and its management before and after administration of planned teaching program.
2. To assess the attitude of diabetic patient on selected complications of diabetes and its management before and after administration planned teaching program.
3. To find out association of pre test knowledge score of selected complications of diabetes and its management among diabetes mellitus client with selected demographic variable.
4. To find out association of pre test attitude score of selected complications of diabetes and its management among diabetes mellitus client with selected demographic variable.

## **HYPOTHESIS**

**H1.**The mean post test knowledge score of patient of selected complications of diabetes and its management after administration of planned teaching programme on selected complications of diabetes and its management will be significantly higher than their mean pre test knowledge score as measured by structured knowledge questionnaire at 0.05 level of significance.

**H2.**The mean post test attitude score of patient of selected complications of diabetes and its management after administration of planned teaching programme on selected complications of diabetes and its management will be significantly higher than their mean pre test attitude score as measured by summated liker scale at 0.05 level of significance

**H3.**There will be significant association of pre-test knowledge score with selected demographic variables of diabetes patient on selected complications of diabetes and its management.

**H4.**There will be significant association of pre-test attitude score with selected demographic variables of diabetes patient on selected complications of diabetes and its management.

## **MATERIAL & METHODS**

The research approach used for the study was Pre experimental with one group pre-test post-test design. Present study was undertaken at selected hospitals. Planned teaching programme

was developed by reviewing literature on selected complications of diabetes and its management in terms of knowledge and attitude. The study comprised of 40 diabetic patients from selected hospitals. The instruments used for generating necessary data were Structured Knowledge Questionnaire to assess knowledge and Likert attitude scale to assess attitude. The data were analyzed and interpreted in terms of objectives and assumption of the study. Descriptive and inferential statistics methods were used for data analysis. Data were organized and presented in following manner which includes description of the all aspects. For this study, the data obtain were analyzed in respect to the objectives of the study by using descriptive and inferential statistics; Master data sheets were prepared; Mean, mean % and SD of the knowledge score were analyzed.

## **RESULT**

### **SECTION: 1 Description of samples according to their demographic characteristics**

**[N=40]**

<b>Sr. No.</b>	<b>Demographic Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>1.</b>	<b>Age</b>		
	a. 21-30 Year	12	30%
	b. 31-40 Year	10	25%
	c. 41-50 Year	10	25%
	d. >50 Year	8	20%
<b>2.</b>	<b>Gender</b>		
	a. Male	30	75%
	b. Female	10	25%
<b>3.</b>	<b>Residence</b>		
	a. Urban	25	62.5%
	b. Rural	15	32.5%
<b>4.</b>	<b>Educational Qualification</b>		
	a. Primary	10	25.0%
	c. Secondary	10	25.0%
	d. Higher Secondary	5	12.5%
	c. Graduate	5	12.5%
	d. Post Graduate	10	25.0%
<b>5.</b>	<b>Since how long having DM</b>		
	a. < 1 Year	10	25.0%
	b. 1-3 Year	10	25.0%
	c. 4 - 7 Year	15	37.5%
	d. >7 Year	5	12.5%

**TABLE 1:** Frequency and percentages distribution of samples according to their demographic characteristic.

**SECTION: 2 ANALYSIS AND INTERPRETATION OF DATA COLLECTED ON STRUCTURED KNOWLEDGE QUESTIONNAIRE OF THE SAMPLE**

Score of Knowledge	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
Poor (0-10 score)	10	25.00%	0	0%
Average (11-20 score)	30	75.00%	4	10.0%
Good (21- 30 score)	0	0%	36	90.0%
<b>Total</b>	<b>40</b>	<b>100%</b>	<b>40</b>	<b>100%</b>

**TABLE 2 :** Table 2 shows that most of sample comes under average category.

**SECTION: 3 ANALYSIS AND INTERPRETATION OF DATA COLLECTED ON LEVEL OF ATTITUDE OF THE SAMPLE**

Level of Attitude	Pre-test		Post-test	
	Frequency	Percentage(%)	Frequency	Percentage(%)
Favorable (61 - 100)	5	12.5	40	40
Unfavorable (20 - 60)	35	87.5	00	00
<b>total</b>	<b>40</b>	<b>100</b>	<b>40</b>	<b>100</b>

**TABLE 3 :** The data depicts that 12.5 % sample having favorable attitude and 87.5 % sample having unfavorable attitude.

**DISCUSSION**

Dr. Bhushanam YC, Dr. Ravi CM, Kiran Nagaraju(2014), At present, India is considered as the diabetic capital of the world with approximately 35 million suffering from this disorder.

The long term complications of DM like micro and macro vascular complications are becoming more common as more people live longer with diabetes. A study was conducted to assess the effectiveness of structured teaching program on prevention of micro vascular and macro vascular complications among patients with diabetes mellitus.<sup>5</sup> Sonu Varghese.et.al (2013) A study was conducted was to determine the Knowledge and attitude regarding prevalence of complications of diabetes in newly diagnosed diabetes patient and to identify the major risk factors for these complications in India .Sample size was 60 patients diabetic patients attending the diabetic clinic.<sup>6</sup> Steven K. Malin, Robert Gerber, MS, et. al (2012) conducted study on Independent and Combined Effects of Exercise Training and Metformin on Insulin Sensitivity in Individuals with Pre diabetes.<sup>7</sup> Vimalavathini, R. et. al. (2012) conducted study on „Educational programme for patients with type-1 diabetes mellitus receiving free monthly supplies of insulin improves knowledge and attitude, but not adherence.<sup>8</sup> Ramachandran, A et. Al (2011) Conducted the study „Genetic epidemiology of NIDDM among Asian Indians“. A high prevalence of the metabolic syndrome and associated cardiovascular risk factors has been observed not only in urban South Asian/Asian Indian adults and youngsters but also in economically disadvantaged people residing in urban slums and rural areas.<sup>9</sup> A Moran, M.B. Hessett et. al. (2011) conducted study on.“ An assessment of patients' knowledge of diabetes, its management and complications.” clinic at the Manchester Royal Infirmary was randomly selected to complete a knowledge questionnaire.<sup>10</sup>

## **CONCLUSION**

It was concluded that samples knowledge improved after implementation of planned teaching programme on selected complications of diabetes and its management. There was significant association found between knowledge and demographic data and no any significant association found between with attitude score and demographic variables.

**Conflict Interest:** No relevant conflict.

**Source of funding:** For this research study project researchers' own budget was used.

**Ethical Clearance:** It was obtained from concerned formal administrative authorities and informed consent was taken from the samples before data collection process.

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