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A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE OF PATIENTS REGARDING PREVENTION OF DIABETES MELLITUS (NON-INSULIN DEPENDENT DIABETES MELLITUS) IN SELECTED DIABETIC CENTERS AT TUMKUR WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET

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Article Info <i>Received 21/07/2026</i> <i>Revised 11/08/2026</i> <i>Accepted 03/09/2026</i>	ABSTRACT The study was conducted to assess the knowledge and practice of patients regarding the prevention of diabetes mellitus. A non-experimental descriptive research design was adopted, and 60 patients from selected diabetes centres in Tumkur were selected using a non-probability purposive sampling technique. Data were collected using a structured knowledge questionnaire and analyzed using descriptive and inferential statistics. The findings showed that 38 (63.33%) patients had inadequate knowledge and 22 (36.67%) had moderate knowledge, with a mean knowledge score of 14.68 ± 2.25. Regarding practice, 32 (53.33%) had average practice, 18 (30%) had poor practice, and 10 (16.67%) had good practice, with a mean practice score of 5.45 ± 1.70. A significant positive correlation was found between knowledge and practice ($r = 0.569$, $p < 0.01$). The study concluded that the majority of patients had inadequate knowledge and average practices regarding diabetes prevention, emphasizing the need for effective health education and counselling.
Key word: Assess, Knowledge, Practice, Patients, Diabetes Mellitus, Socio-demographic variables,	

INTRODUCTION

Diabetes mellitus is one of the most common chronic metabolic disorders affecting people throughout the world. It is characterized by persistent elevation of blood glucose levels resulting from defects in insulin secretion, insulin action, or both. Diabetes mellitus is a major public health problem because of its increasing prevalence, long-term complications, and impact on the quality of life of individuals, families, and communities.

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Among the different types of diabetes mellitus, Type 2 diabetes mellitus, formerly known as non-insulin-dependent diabetes mellitus, is the most prevalent form and accounts for the majority of diabetes cases. Type 2 diabetes mellitus is strongly associated with modifiable risk factors such as unhealthy dietary habits, physical inactivity, overweight and obesity, sedentary lifestyle, stress, and inadequate health practices. Although diabetes is a chronic condition, many cases of Type 2 diabetes can be prevented or delayed through appropriate lifestyle modifications and early identification of risk factors. Regular physical activity, a balanced diet, maintaining a healthy body weight, avoiding tobacco and excessive alcohol



consumption, regular health check-ups, and adherence to medical advice are important measures in the prevention and control of diabetes mellitus. Diabetes mellitus can lead to serious complications when it is not adequately prevented or controlled. Long-term complications may affect the cardiovascular system, kidneys, eyes, nerves, and other organs. These complications can result in disability, reduced productivity, increased healthcare expenditure, and premature mortality. Therefore, prevention and effective management of diabetes require active participation of individuals in maintaining healthy lifestyle practices. Knowledge plays an important role in influencing an individual's health-related practices. Adequate knowledge regarding risk factors, warning signs, dietary practices, physical activity, medication adherence, blood glucose monitoring, and regular medical follow-up can help individuals adopt appropriate preventive practices. However, lack of awareness, misconceptions, poor lifestyle habits, and inadequate health education may prevent individuals from taking necessary measures to prevent diabetes and its complications. Patients attending diabetic centres are in an important position to receive health education and develop appropriate self-care practices. Assessing their existing knowledge and practices helps healthcare professionals identify areas of deficiency and provide appropriate educational interventions. An information booklet can serve as a simple, accessible, and standardized educational resource to reinforce essential information regarding the prevention of Type 2 diabetes mellitus and encourage healthy practices. As a nurse, the researcher has an important role in health promotion, disease prevention, patient education, and encouragement of healthy lifestyle practices. Hence, the present study was undertaken to assess the knowledge and practice of patients regarding prevention of diabetes mellitus (non-insulin-dependent diabetes mellitus) in selected diabetic centres at Tumkur, with a view to developing an information booklet.

STATEMENT OF PROBLEM:

“A study to assess the knowledge and practice of patients regarding prevention of diabetes mellitus (non insulin dependent diabetes mellitus) in selected diabetic centers, Tumkur with a view to develop an information booklet.”

OBJECTIVES:

1. Assess the level of knowledge and practice of patients regarding prevention of diabetes mellitus.
2. Determine the correlation between knowledge and practice of patients regarding prevention of diabetes mellitus.
3. Find out the association between the level of knowledge and practice of patients regarding prevention of diabetes mellitus with their selected socio demographic variables.
4. To develop information booklet regarding prevention of diabetes mellitus.

HYPOTHESIS:

H1: There will be significant correlation between knowledge and practice of patients regarding prevention of diabetes mellitus

H2: There will be significant association between level of knowledge and practice of patients regarding prevention of diabetes mellitus with their selected socio-demographic variables.

ASSUMPTIONS:

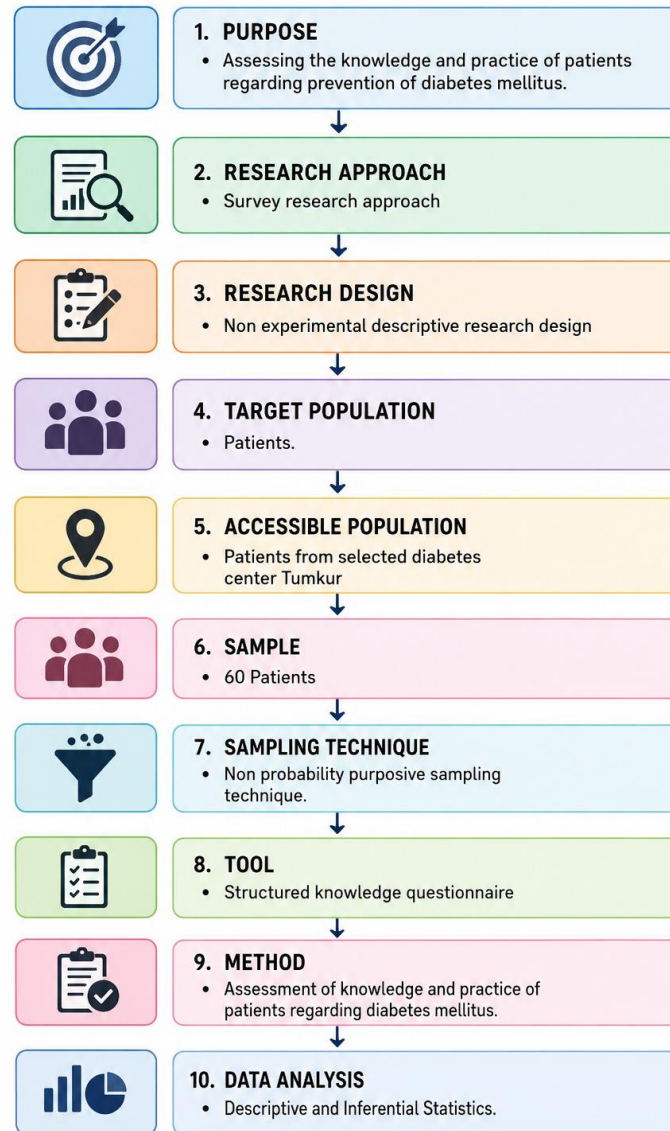
- Patients may have some knowledge regarding prevention of diabetes mellitus.
- Patients may have average practice of prevention of diabetes mellitus
- Patients may act according to the information they perceive.

DELIMITATIONS:

This study is limited to,

- Collection of data is only from patients in selected diabetic centers, Bangalore.
- Knowledge and practice will be assessed only as the correct response given to the item in knowledge questionnaire and practice assessment scale.
- 60 patients in selected diabetic centers, Bangalore.
- 4 weeks of data collection.



RESEARCH METHODOLOGY:**SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY****Figure 1: Schematic representation of research methodology****RESULTS AND DISCUSSION**

The result of this study showed that majority of the patients 38(63.33%) had inadequate level of knowledge and 22(36.67%) of them had moderate level of knowledge regarding prevention of diabetes mellitus with mean knowledge score of 14.68 and SD of 2.25. It was observed that, 32(53.33%) of patients had average practice and 18(30%) of patients had poor practice and 10(16.67%) of patients had good practice regarding prevention of diabetes mellitus with mean practice score of 5.45 and SD 1.70. The

correlation between knowledge and practice of patients regarding diabetes mellitus was significant. It was recorded that, the correlation between knowledge and practice was 0.569 which was significant at $p < 0.01$ levels. The chi-square value of the level of knowledge of patients and selected socio demographic variables was significant at $P \leq 0.01$ level. It is showed that, obtained chi square value for educational status, family monthly income and length of diagnosis of DM were higher values (25.14, 11.30 and 30.26 respectively) when compared to the table value at



$P \leq 0.05$ level of significance. It was recorded that, there was a significant association between level of practice of patients with their selected socio-demographic variables. The obtained chi square value for educational status,

occupational status and management of DM with insulin were higher values (39.31, 15.66 and 15.66 respectively) when compared to the table value at $P \leq 0.05$ level of significance.

Table 1: Association between level of practice of patients with their selected socio demographic variables
(n=60)

Characteristics	Category	N	Level of practice			χ^2
			Poor	Average	Good	
Age	35-45 years	6	1	4	1	5.06 NS
	35-45 years	19	7	9	3	
	56-65 Years	20	8	8	4	
	66 years and above	15	2	11	2	
Gender	Male	43	11	25	7	1.65 NS
	Female	17	7	7	3	
Religion	Hindu	28	11	12	5	3.12 NS
	Muslim	19	5	11	3	
	Christian	13	2	9	2	
	Others	0	0	0	0	
Dietary pattern	Vegetarian	22	6	13	3	0.49 NS
	Non Vegetarian	38	12	19	7	
Educational Status	Primary education	18	6	12	0	39.31 S*
	Secondary education	14	2	12	0	
	Undergraduate	21	10	7	4	
	Postgraduate and above	7	0	1	6	
Occupational status	Self employee	4	1	3	0	15.66 S*
	Private employee	26	13	11	2	
	Government employee	5	2	3	0	
	Daily Wages	8	0	5	3	

**Significant at $P \leq 0.01$ level, S: Significant, NS; Non-significant

The above table-1 depicts that, the association of level of practice of patients with their selected socio-demographic variables. The obtained chi square value for educational status, occupational status and management of DM with insulin were higher values (39.31, 15.66 and 15.66 respectively) when compared to the table value at $P \leq 0.05$ level of significance. There was no significant association between socio-demographic variables of patients such as age, gender, religion, dietary pattern, family monthly income, length of diagnosis of DM, family history of DM and source of information regarding prevention of DM (5.06, 1.65, 3.12, 0.49, 6.99, 5.79, 1.25 and 4.42 respectively) with level of practice regarding prevention of diabetes mellitus.

CONCLUSION

The study assessed patients' knowledge and practice regarding prevention of Diabetes Mellitus. Majority, 38 (63.33%), had inadequate knowledge, while 22 (36.67%) had moderate knowledge. The mean

knowledge score was 14.68 ± 2.25 . Regarding practice, 32 (53.33%) had average, 18 (30%) had poor, and 10 (16.67%) had good practice. The mean practice score was 5.45 ± 1.70 . A significant positive correlation was found between knowledge and practice ($r = 0.569$, $p < 0.01$). Knowledge and practice were significantly associated with selected socio-demographic variables, including educational status and other relevant factors. The present study was conducted to assess the knowledge and practice of patients regarding the prevention of Diabetes Mellitus (Non-Insulin-Dependent Diabetes Mellitus) in selected diabetic centers at Tumkur, with a view to developing an information booklet. The findings revealed that a considerable proportion of patients had inadequate knowledge and unsatisfactory preventive practices regarding Diabetes Mellitus. The study highlights the need for effective health education regarding healthy dietary habits, regular physical activity, weight management, medication adherence, regular blood glucose monitoring, and lifestyle modifications. The information booklet



developed by the investigator may serve as a simple and useful educational resource to improve patients' knowledge and encourage appropriate preventive practices. Thus, the study concludes that systematic health

education and continuous nursing support can play an important role in promoting healthy practices, preventing complications, and improving the overall health of patients with Diabetes Mellitus.

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