

**A PRE EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF
STRUCTURED TEACHING PROGRAMME THROUGH PAMPHLET IN TERMS
OF KNOWLEDGE REGARDING FOOT CARE AMONG TYPE II DIABETIC
PATIENTS ATTENDING OPD OF SELECTED HOSPITALS OF
GANDHINAGAR DISTRICT, GUJARAT STATE**

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Abstract

Introduction:-

Diabetes mellitus is a chronic metabolic disorder characterized by elevated blood glucose levels, which can lead to various complications, including those affecting the feet. Type II diabetes, the most common form of the disease, is associated with neuropathy, peripheral vascular disease, and impaired wound healing, making foot care a critical aspect of diabetes management. Studies indicate that poor foot care practices, lack of awareness, and delayed medical intervention significantly contribute to the high incidence of foot-related complications. This study aims to assess the knowledge, practices, and challenges related to foot care among Type II diabetic patients attending the OPD of selected hospitals. It also seeks to identify gaps in patient education and healthcare services to propose strategies for better diabetic foot care management.

Objective

- To assess the knowledge regarding foot care among type II diabetic patients as measured by structured interview schedule.
- To find out association with pre test knowledge score & selected demographic variable.
- To find out the effectiveness of structured teaching programme through pamphlet regarding foot care among type II diabetic patients in terms of gain in knowledge.

Methodology

Pre experimental research design (One group pretest, post-test design) Target Population-Type II diabetic patient, Accessible Population: Type II diabetic patients attending OPD of selected Hospitals of Gujarat, by Purposive sampling, 60 sample where taken.

MAJOR FINDINGS OF THE STUDY

- The study findings showed a highly significant difference ($t_{59}=15.33$, $p < 0.001$) between mean pre-test Knowledge (8.53) and post test (16.76) Knowledge scores. About 29.3% respondents had good knowledge, 40% had satisfactory knowledge and 30.7% had poor knowledge about foot care. Whereas only 14% respondents had good practices for foot care, 54% had satisfactory practices and 32% had poor practices. Education of the respondents had significant statistical association with knowledge (p -value <0.001) and practices (p -value <0.001) regarding foot care. Literacy has significant association with the knowledge and practices related to foot care in diabetic patients.

Conclusions:

Conclusions drawn from present study were as follows Educating the patient will help them to improve their knowledge regarding foot care, prevents future complication and leads to safe diabetes mellitus.

Key Point:

Type II diabetes is a chronic metabolic disorder with long-term complications, Outpatient Departments (OPD) in Foot Care Management,

Introduction:

Diabetic foot is one of the most incapacitating chronic complications resulting from poor disease management. It has a social and economic impact on families, health system, and society as a whole in both developing and developed countries. Every 30 seconds; a lower limb is lost as a consequence of diabetes.

Worldwide, more than a million amputations are performed each year as a consequence of diabetes. Up to 85 percent of all amputations in people with diabetes are preceded by foot ulcers. The investigator also found that they lacked knowledge regarding the foot care and they expressed their desire to learn it.

REVIEW OF LITERATURE

Al-Maskari F, El-Sadig M (2007) conducted a cross sectional survey study to determine the prevalence and risk factors for foot complications among diabetic patients in Al-Ain district, United Arab Emirates (UAE). A sample of 513 diabetic patients with a mean age of 53 years (SD: +/- 13) were randomly selected during 2003/2004. 49% of the study populations were diagnosed to have DM without presenting with symptoms of diabetes and 35% had hypertension. The majority (86%) had type 2 DM. of the total sample, 39% (95% CI: 35.1-43.7%) had PN and 12% (95% CI: 8.8-14.4%) had PVD. The low prevalence of foot ulceration and amputation among the study population, nevertheless, a substantial proportion had potential risk factors for foot complications.

Vatankhah .N,et al (2009) conducted an experimental study to evaluate the impact of a simple educational program on the knowledge and practice of people with type II diabetes in relation to the foot at risk in Tehran, Iran. One hundred and forty-eight people with type 2 diabetes underwent a structured interview using a 32-item. The mode of the intervention was face-to-face and found that the applied educational intervention aimed at patients with type 2 diabetes has improved their knowledge and practice about diabetic foot care ($p < 0.0001$ and $p = 0.011$; wilcoxon signed ranks test,

respectively). In conclusion the findings of study have shown that a simple face-to-face education is an effective and applied method to improve the knowledge about foot care.

Methodology

In this study, the researcher used the Experimental -Quantitative research approach, population of the research was a type 2 diabetes Clients who have participated in the study, Pre experimental research design (One group pretest, post-test design). Target Population-Type II diabetic patient, Accessible Population Type II diabetic patients attending OPD of selected Hospitals of Gandhinagar District, Gujarat State, by Purposive sampling, structured interview schedule, with Intervention structured teaching programme through pamphlet.

Sampling:

selected sample by Purposive sampling 60 type II diabetic patients were used.

Inclusion Criteria:

- Type II Diabetic patient's age above 30 yrs.
- Type II Diabetic patients whose blood sugar level is above 140mg/dl.
- Type II Diabetic patients who attends OPD in Gujarat hospital Gandhinagar District, Gujarat State.
- Type II Diabetic patients who can understand and respond in Hindi & English.
- Type II Diabetic patients who are willing to participate

Data Collection Procedure:

The researcher prepared and adhered to the plan of the data gathering process as follows: -

- A written permission was obtained from the concerned authority.

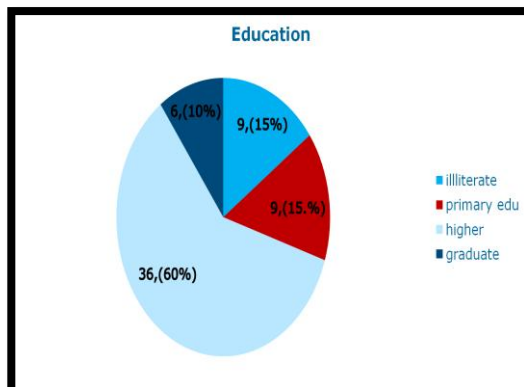
- Total 60 samples were selected for the study from OPD of Gandhinagar District, Gujarat State
- A pre-test with the socio demographic data and structured interview schedule was used to assess the knowledge of type II diabetic patients regarding foot care from all 60 subjects following explanation of questionnaire was given.
- Post-test was administered on the 15th day during their follow up visit by using the same questionnaire.

DATA ANALYSIS & INTERPRETATION

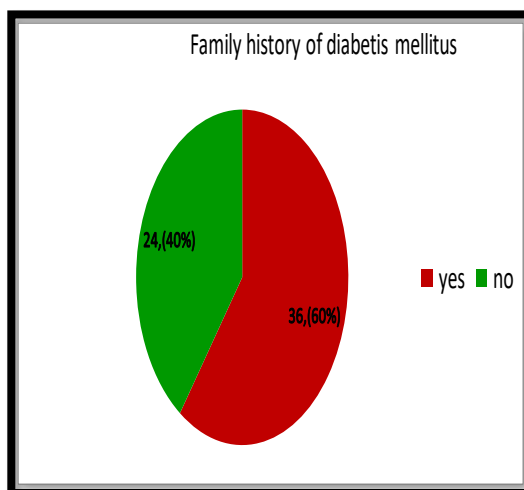
The collected data was tabulated, organized and analysed by using descriptive and inferential statistics.

- Section I: Demographic Data of Respondent
- Section II: Association of pre test knowledge score with selected demographic data
- Section III: Comparison of mean score of significant demographic variable
- Section IV: Association between pretest knowledge score and selected demographic variables
- Section V Effectiveness of Pamphlet

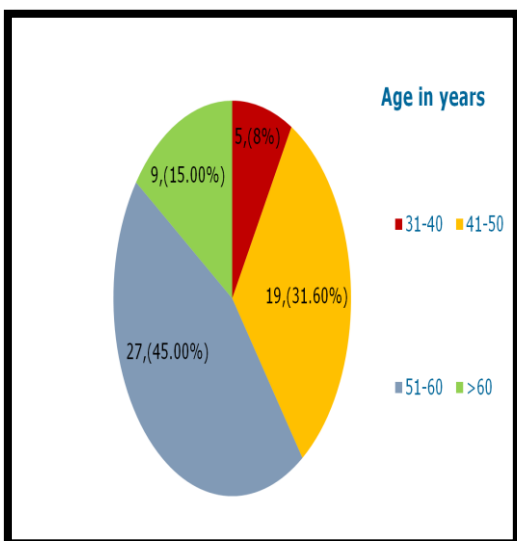
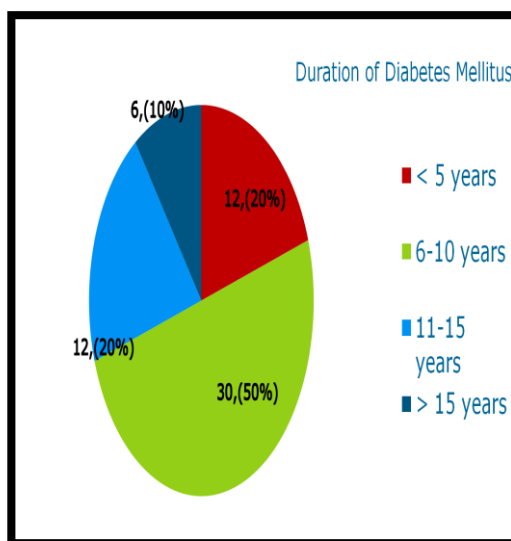
Section I: Demographic Data of Respondent Pie Diagram showing percentage distribution of Education



Pie diagram showing percentage distribution of Family History of D M



Pie Diagram showing percentage distribution of duration of Diabetes Mellitus

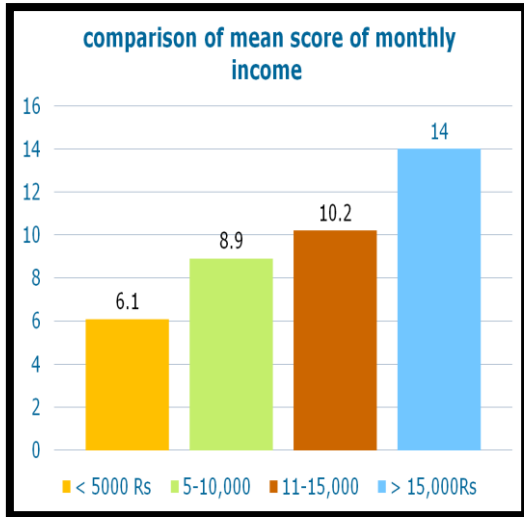


Section: II Association of pre test knowledge score with selected demographic data

S.No.	Demographic variables	Frequency (n)	Percentage (%)	X ² Value
1.	Age in years			
	31-40	5	8.3%	10.52
	41-50	19	31.6%	NS
	51-60	27	45%	
	≥60	9	15%	
2.	Sex			
	Male	36	60%	1.8
	Female	24	40%	NS
3.	Marital Status			
	Single	4	6.66%	5.67
	Married	47	78.33%	NS
	Divorced	4	6.66%	
	Widow	5	8.3%	
4.	Qualification			
	Illiterate	9	15%	10.88
	Primary Education	9	15%	NS
	Higher Secondary	36	60%	
	Graduate	6	10%	
5.	Occupation			
	Laborer	8	13.33%	15.09
	Business	14	23.33%	S
	Service	22	36.66%	
	Unemployed	16	26.66%	
6.	Monthly Income in Rs.			
	<5000	19	36.1%	18.28
	5000-10000	15	25%	S
	11000-15000	23	38.3%	
	>15001	3	5%	
7.	Family history of diabetes			
	Yes	36	60%	9.3
	No	24	40%	S
8.	Duration of diabetes mellitus			
	<5 years	12	20%	5.44
	6-10 years	30	50%	NS
	11-15 years	12	20%	
	>15 years	6	10%	

Section III : Comparison of mean score of significant demographic variable

Column diagram showing mean score of socio demographic data of monthly income



Column diagram showing mean score of different occupation

Section IV Association between pretest knowledge score and selected demographic variables There is a association with occupation, family history of diabetes mellitus of type II diabetic Patients regarding foot care. so the hypotheses RH₁ There is significant association with knowledge & selected demographic variable is accepted.

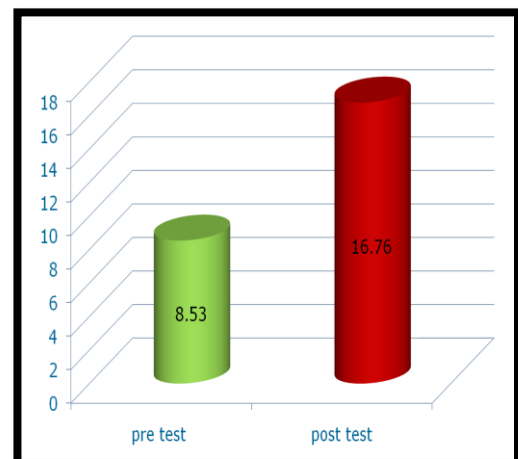
Assess the pre-test knowledge scores of diabetic patients regarding foot care

Knowledge score	Grade	Pre test			
		Frequency	%	Mean score	S.D
0-8	Po	31	5	8.53	±4.

Knowledge score	Grade	Frequency	%	Mean score	S.D
17-24	good	3	5%	16.76	±3.836

Assess the Post-test knowledge score of diabetic patients regarding foot care

Knowledge score	Grade	post test			
		Frequency	%	Mean score	S.D
0-8	Poor	0	0	16.76	±3.836
9-16	Average	30	50	16.76	±3.836
17-24	good	30	50	16.76	±3.836



Column diagram showing pretest and post-test mean score of type II diabetic patients regarding foot care

EFFECTIVENESS OF PAMPHLET

Mean, Standard Deviation (SD) and ‘t’ value of pre and post-test Knowledge scores on foot care of diabetic patients

Knowledge area	Mean score	Mean difference	S.D	d f,	t, v al ue
Pre test	8.53	8.23	±4.3360	59	15.33** *
Post test	16.76		±3.836		
<p>$p < 0.05^*$ $p < 0.01^{**}$, $p < 0.001^{***}$</p>					

Conclusion:

Educating the patient will help them to improve their knowledge regarding foot care, prevents future complication and leads to safe diabetes mellitus. Structured teaching programme through pamphlet is considered an effective education strategy to improve the awareness and knowledge of type II diabetic patient regarding foot care.

RECOMMENDATIONS

From the findings of the present study, the following recommendations had been suggested.

- In much larger sample for broader generalization, in different settings, with a control group.
- A follow up could be carried out to find out the effectiveness in terms of retention of knowledge and revision need of teaching programme.

- A study can be conducted to assess the prevalence of diabetes mellitus and complications associated with it.

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