



Assess The Knowledge Of Diabetic Foot Among Diabetic Patients Attending Tertiary Care Hospital Of Vidarbha Region Of Maharashtra

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Abstract: **Aim:** The study aims to Assess the knowledge of diabetic foot among diabetic patients attending tertiary care hospital. **Problem statement:** Assess the knowledge of diabetic foot among diabetic patients attending tertiary care hospital of Vidarbha region of Maharashtra. **Primary objective** to assess the knowledge on diabetic foot among diabetic patients. To assess the knowledge on diabetic foot among diabetic patients with selected demographic variables. **Method:** Descriptive research design use for the study. It was conducted over 50 diabetic patients by using convenient sampling technique. **Result:** The study finding reveals that the majority of the diabetic patients with regards to level of knowledge regarding diabetic foot is 10% of diabetic patients had poor level of knowledge score, 28% had poor, 40% had average, 18% had good and 4% had very good level of knowledge score. Mean knowledge score of the diabetic patients was 17.70 ± 5.52 and Mean percentage was $59\% \pm 18$. The Chi-Square analysis revealed that none of the socio-demographic variables, namely age, education, occupation, income, and duration of diabetes, showed a statistically significant association with the knowledge level of diabetic patients regarding diabetic foot care. Since all the calculated χ^2 values were lower than value at 12 degrees of freedom ($p > 0.05$). This indicates that the variations in knowledge levels among the participants were not influenced by these demographic characteristics but may be attributed to other factors such as individual awareness, health education exposure, or personal interest.

Interpretation and conclusion: Statistical analysis helps researchers to make sense of the data collected. Without statistics, the raw data would only be a mass of numbers. Statistical procedures enable the researcher to summarize, organize, evaluate, interpret, and communicate numerical information. Statistics are mainly of two types: descriptive and inferential. In this study, the analysis deals with the data collected from 50 diabetic patients admitted in a selected tertiary care hospital in Vidarbha region of Maharashtra. The data collected were coded, entered, and analyzed using descriptive and inferential statistics. The Chi-Square analysis revealed that none of the socio-demographic variables, namely age, education, occupation, income, and duration of diabetes, showed a statistically significant association with the knowledge level of diabetic patients regarding diabetic foot care. Since all the calculated χ^2 values were lower than value at 12 degrees of freedom ($p > 0.05$). This indicates that the variations in knowledge levels among the participants were not influenced by these demographic or clinical characteristics but may be attributed to other factors such as individual awareness, health education exposure, or personal interest.

INTRODUCTION

India is the "diabetes capital" of the world, with more than 75 million people with diabetes. The incidence of foot ulcers among people with diabetes varies from 8% to 17%. Diabetic foot ulcer is one of the most common complications of diabetes and it is because of microvascular and neuropathic complications. People with poor knowledge and practice regarding diabetic foot care are known to have a higher incidence of diabetic foot ulcers that cause severe disability and hospitalization. Proper control of blood glucose prevents the development of microvascular complications.⁷

BACKGROUND OF THE STUDY

The history of diabetes dates back to ancient civilizations, with records of the disease found in Egyptian and Greek texts. The symptoms of excessive thirst and urination were noted by these early cultures, describing the condition as a "melting down of flesh and limbs into urine. A major breakthrough in diabetes management occurred in the 20th century with the discovery of insulin by Frederick Banting and Charles Best, enabling better symptom management and prevention of complications.¹⁵

NEED OF THE STUDY

It is essential to assess the knowledge of diabetic foot care among diabetic patients and identify areas for educational interventions to improve patient outcomes, particularly targeting patients with lower education levels and those who have not received adequate advice on foot care. By understanding the knowledge gaps and developing targeted interventions, healthcare providers can improve patient outcomes and reduce the risk of diabetic foot complications.^{30, 29}

PROBLEM STATEMENT

Assess the knowledge of diabetic foot among diabetic patients attending tertiary care hospital of Vidarbha region of Maharashtra

OBJECTIVES:

Primary objective:

1. To assess the knowledge on diabetic foot among diabetic patients.
2. To assess the knowledge on diabetic foot among diabetic patients with selected demographic variables.

ASSUMPTION:

- Diabetic patients may have some knowledge about diabetic foot.

REVIEW OF LITERATURE

1. Literature related to general information on diabetic foot
2. Literature related to diabetic foot among diabetic patient

RESEARCH APPROACH

A quantitative research approach was chosen to assess the knowledge on diabetic foot care among the diabetic patient admitted in selected Tertiary Care Hospital.

RESEARCH DESIGN

The descriptive research design was used to assess the knowledge on diabetic foot care among the diabetic patients with in selected hospital at Vidarbha region. Maharashtra.

- first to assess the knowledge on diabetic foot among the diabetic patient using structure interview schedule.
- Administration of SIS on diabetic foot among diabetes.

POPULATION

Target population: The diabetic patients to whom study findings can be generalized were the target population.

Accessible population: the diabetic patients those are available for the proposed study were the accessible population.

SAMPLING

Sample: The diabetic patients selected by using convenient sampling at selected tertiary care hospitals were the samples for the proposed study.

Sampling technique: A convenient sampling technique was used to assess the structured interview schedule. (SIS) on diabetic foot care among the diabetic patients admitted in tertiary care hospitals, Maharashtra

Data and Sources of Data

Research scholar has planned to collect data himself from diabetic patients after fixing a time and date. After a due permission from the authorities concerned, of diabetic patients were interviewed or bedside Further, each question was read before one by one, and put (✓) mark on right option mentioned below each question/statement as responded by researcher. However, the duration of interview took around 35 minutes for individual. The doubts were clarified during interview was carried out by the investigator himself between 9 am to 6 pm.

PLAN FOR DATA ANALYSIS

The data collected was planned to analyses by using Descriptive and inferential statistics such as; percentage, mean, and standard deviation. The collected date was planned to analyses under following heads

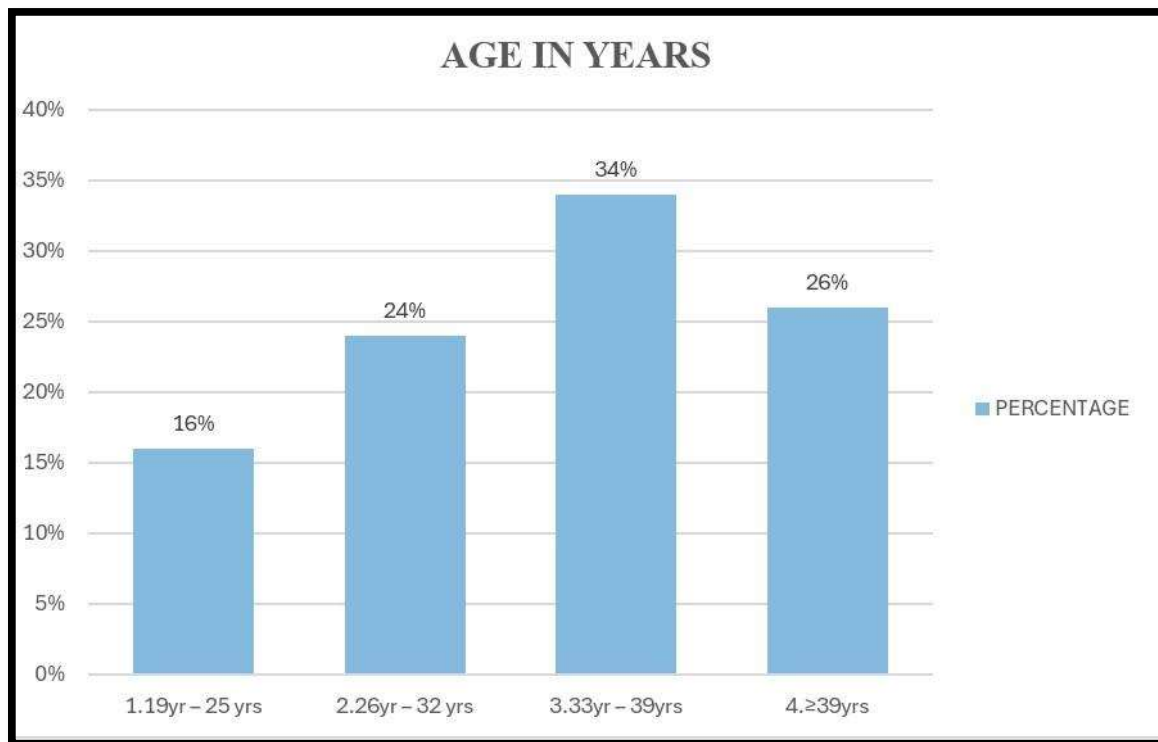
ANALYSIS AND INTERPRETATION**SECTION – I**

Distribution Of Diabetic Patients with Regards to Their Demographic Characteristics.

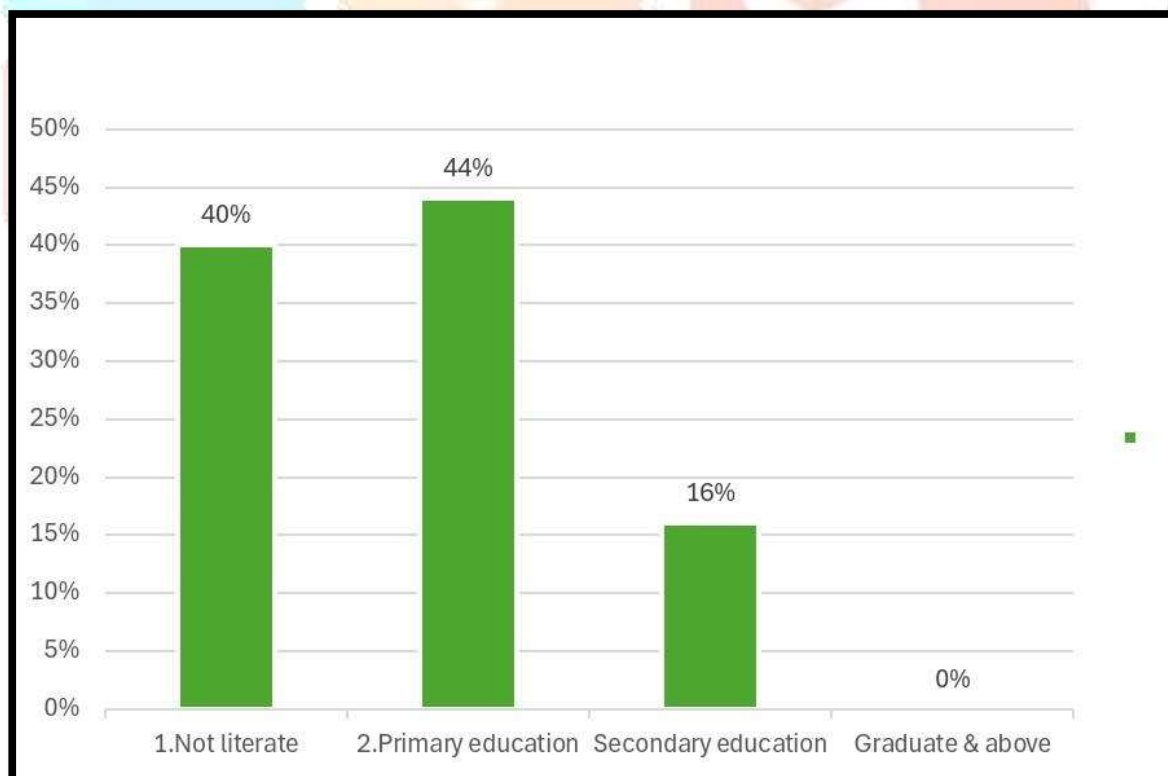
n = 50

DEMOGRAPHIC VARIABLES	NO. OF SAMPLE	PERCENTAGE
Age in years		
1.19yr – 25 yrs	08	16%
2.26yr – 32 yrs	12	24%
3.33yr – 39yrs	17	34%
4.≥39yrs	13	26%
Education		
1.Not literate	20	40%
2.Primary education	22	44%
Secondary education	08	16%
Graduate & above	00	00%
Occupation		
Government job	00	00%
Private job	08	16%
House wife	18	36%
Other	24	48%
Income		
1,000 –10,000 Rs/Month	11	22%
10,000 – 20,000 Rs/month	16	32%
20,000–30,000 Rs/Month	14	28%
≥ 30,000 Rs/Month	08	16%
Duration of diabetes		
2 year	19	38%
3 year	17	34%
4 year	8	16%
5 year	6	12%

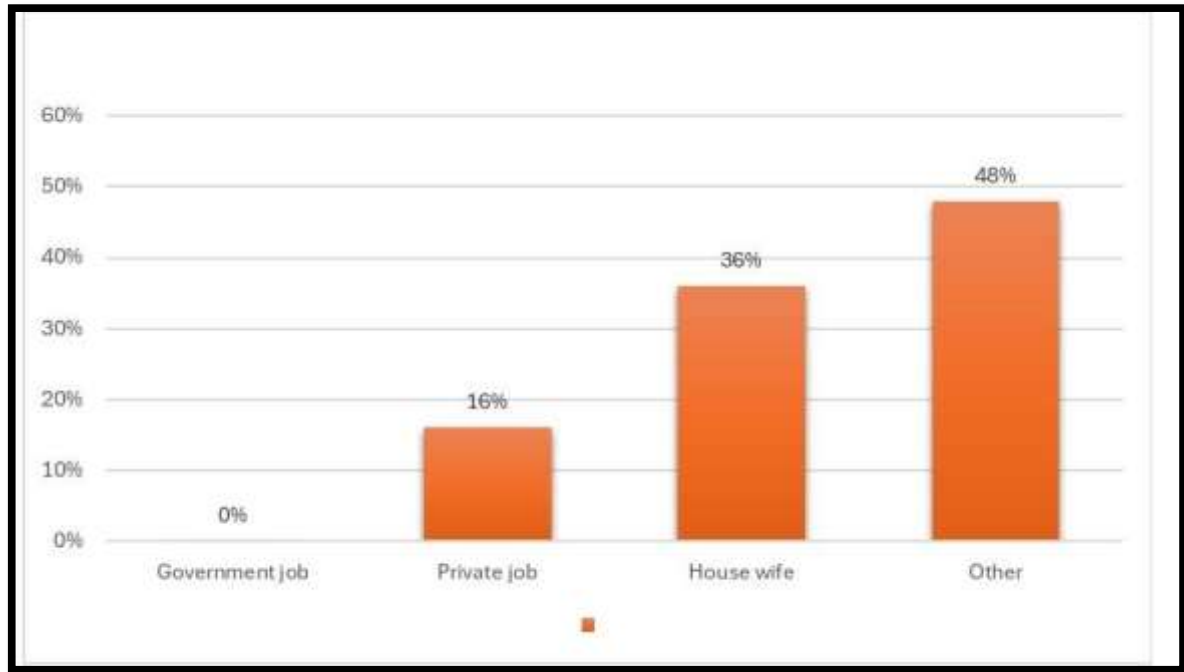
Graph 4.1: - Percentage wise distribution of diabetic patients according to the age in years



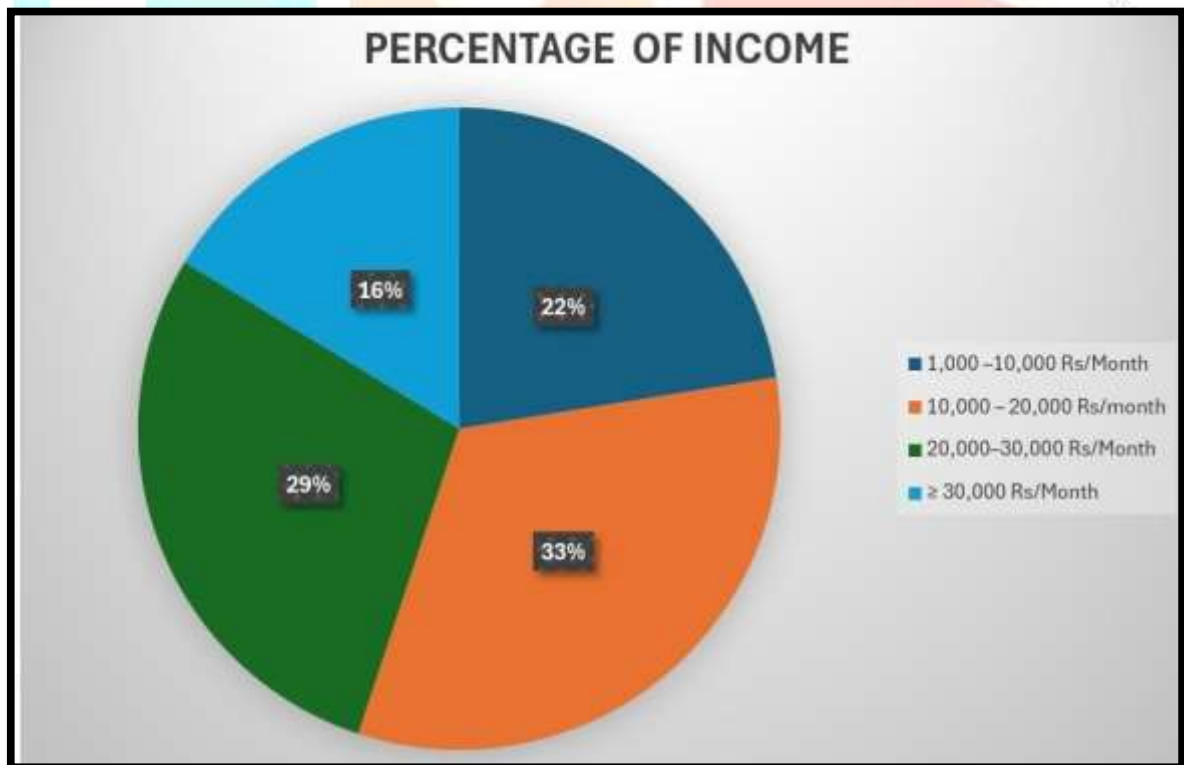
Graph 4.2:- Percentage wise distribution of diabetic patients according to the education.



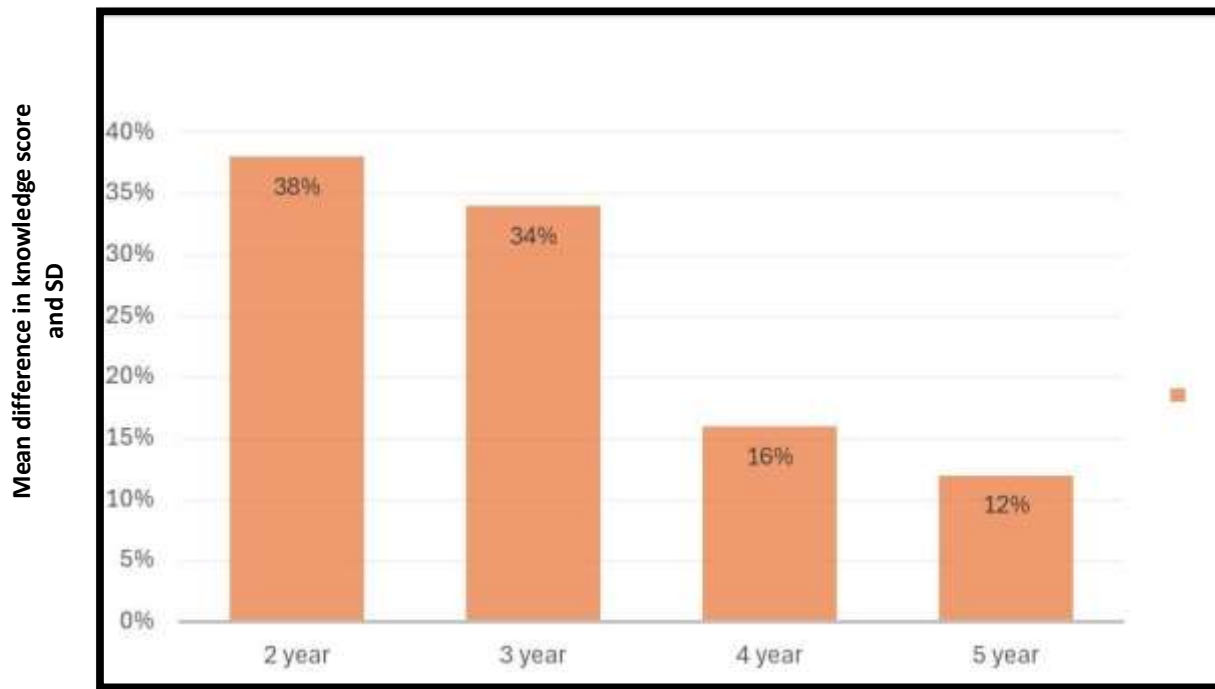
Graph 4.3:- Percentage wise distribution of diabetic patients according to the occupation



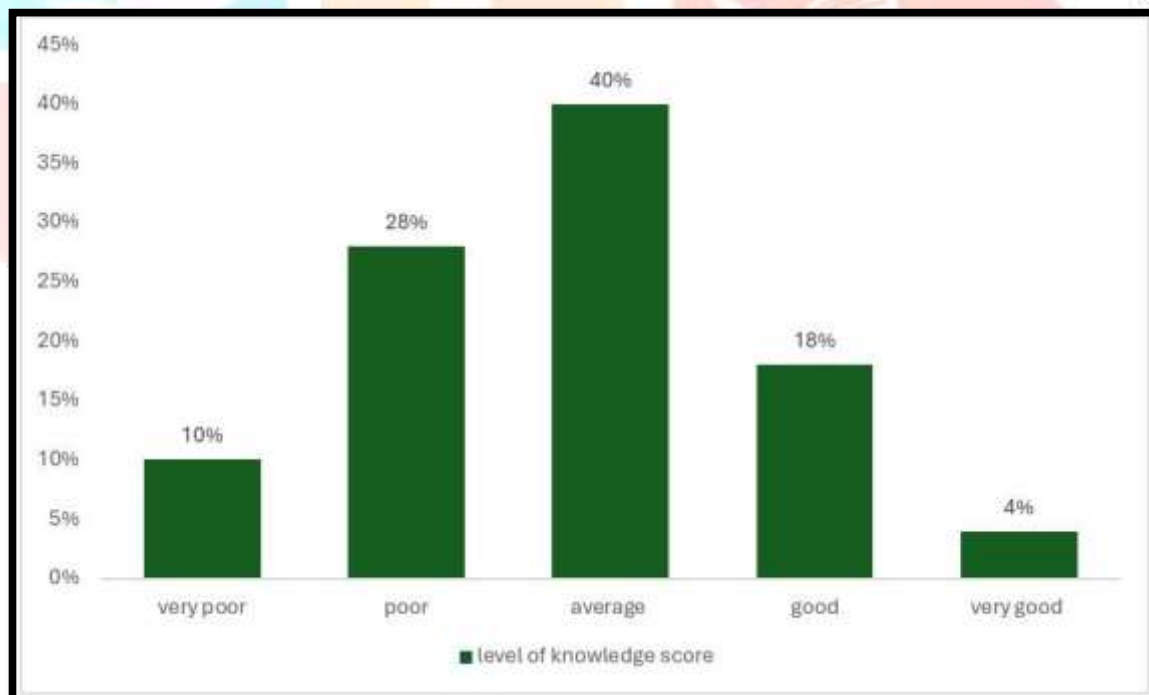
Graph 4.4 :- Percentage wise distribution of diabetic patients according to the income.



Graph 4.5: - Percentage wise distribution of diabetic patients according to the duration of diabetes.



Graph 4.6: - Distribution of diabetic patients with regards to level of knowledge regarding diabetic foot



Section II

Association of knowledge on diabetic foot among diabetic patients selected in tertiary care hospital of Vidarbha region, Maharashtra with selected demographic variables.

Table 4.3: - a. Association of knowledge score regarding diabetic foot in relation to age in years.

n = 50

Age in years	Frequency	Mean	X ² value	p-value
19 – 25 yrs.	8	16.3 ± 6.39	0.43	0.999
26 – 32 yrs.	12	17.83 ± 4.93		
33 – 39 yrs.	17	16.17 ± 5.67		
≥39 yrs	13	19.30 ± 2.17		

Table 4.4: - b. Association of knowledge score regarding diabetic foot in relation to Education.

n = 50

Education	Frequency	Mean knowledge score	X ² value	p-value
Not Literate	20	15.55 ± 4.97	2.78	0.997
Primary education	22	18.75 ± 5.86		
Secondary education	08	21.80 ± 1.64		
Graduation and above	00	00		

Table 4.5: - c. Association of knowledge score regarding diabetic foot in relation to a Occupation.

n = 50

Occupation	Frequency	Mean knowledge score	X ² value	p-value
Govt. Job	0	0	1.23	0.999
Private job	11	21.75 ± 5.74		
House wife	18	17.5 ± 4.98		
Other	21	16.19 ± 4.94		

Table 4.6:- d. Association of knowledge score regarding diabetic foot in relation to Income

Income	Frequency	Mean knowledge score	X ² value	p- value
1000-10000 Rs/Month	14	16.14 ± 5.57	1.05	0.998
10000-20000 Rs/Month	24	17.20 ± 5.29		
20000-30000 Rs/Month	5	19.4 ± 5.49		
≥30000 Rs/Month	8	19.62 ± 4.01		

Table 4.7:- e. Association of knowledge score regarding diabetic foot in relation to Duration of diabetes mellitus

Duration of diabetes mellitus	Frequency	Mean knowledge score	X ² value	p- value
2 years	16	16 ± 6.13	0.65	0.996
3 years	17	17.88 ± 5.63		
4 years	8	15.12 ± 18.52		
5 years	6	20.5 ± 13.01		

Table 4.8: Association of Demographic Variables with Knowledge Levels of Diabetic Patients Based on Chi-Square Analysis

Sr. No.	Demographic variables	Mean	Standard deviations	X ² value	df	X ² - tabulated value	Significant
1.	Age	17.40	± 4.97	0.43	12	21.03	Not significant
2.	Education	17.96	± 5.45	2.78			
3.	Occupation	17.88	± 5.47	1.23			
4.	Income	17.50	± 5.22	1.05			
5.	Duration of diabetes mellitus	17.10	± 9.83	0.65			

CONCLUSION

The Chi-Square analysis revealed that none of the socio-demographic variables, namely age, education, occupation, income, and duration of diabetes, showed a statistically significant association with the knowledge level of diabetic patients regarding diabetic foot care. Since all the calculated χ^2 values were lower than value at 12 degrees of freedom ($p > 0.05$). This indicates that the variations in knowledge levels among the participants were not influenced by these demographic or clinical characteristics but may be attributed to other factors such as individual awareness, health education exposure, or personal interest.

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