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A Descriptive Study to Assess the Knowledge Regareding Prevention of Diabetic Foot Ulcer among Diabetic Patients at Selected Hospitals of Moodbidri and Karkala

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Abstract
Diabetes mellitus is a silent disease and is now recognized as one of the fastest growing threats to public health in almost all countries of the world .It is also called the "disease of prosperity". Foot ulcer is one of the most common and dreadest complications of diabetes mellitus. This is also a frequent cause of hospitalization and disability. A descriptive study was conducted to assess the knowledge regarding prevention of diabetic foot ulcer among diabetic patients at selected hospitals of Moodbidri and Karkala.60 diabetic patients were selected for the study by purposive sampling technique. Data was collected from samples using 2 tools those are socio demographic variables and structured interview schedule on prevention of diabetic foot ulcer. The investigator collects data from samples using interview method. The data was analyzed by using descriptive and inferential statistics. The result revealed that the 40% had average knowledge, 38.4% of diabetic patients had good knowledge, 10% had very good knowledge and 11.6% had poor knowledge regarding prevention of diabetic foot ulcer, The mean knowledge scores was 11.7and SD was 4.69. The knowledge score had statistical significant relationship with occupation. Calculated 'p' value is 0.01 which is less than 0.05 hence there is association between level of knowledge and occupation.
Keywords: Knowledge, diabetic patients, prevention of diabetic foot ulcer.

INTRODUCTION

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin, a hormone that regulates blood sugar, gives us the energy that we need to live. If it cannot get into the cells to be burned as energy, sugar builds up to harmful levels in the blood. [1]

The number of people with diabetes has risen from 108 million in 1980 to 422 million in 2014. The global prevalence of diabetes among adults over 18 years of age has risen from 4.7% in 1980 to 8.5% in 2014. In 2012 diabetes was the direct cause of 1.5 million deaths and high blood glucose was the cause of another 2.2 million deaths. In 2008, an estimated 347 million people in the world had diabetes and the prevalence is growing, particularly in low and middle-income countries. India had 69.2 million people living with diabetes (8.7%) as per the 2015 data. [1]

Diabetic foot is one of the common diabetic complications found in India. Both aerobic and anaerobic pathogens form the etiology for diabetic foot infection. [2] Diabetes was the seventh leading cause of death in the United States in 2010 based on the 69,071 death certificates in which diabetes was listed as the underlying cause of death. In 2010, diabetes was mentioned as a cause of death in a total of 2,34,051 certificates.[3]

Foot ulcer is one of the most common and dreadest complication of diabetes mellitus. This is also a frequent cause of hospitalization and disability. Most of the patients with diabetic foot ulcers living in developing countries present to healthcare facilities fairly late with advanced foot ulcers because of poor economic status, inadequate knowledge of self-care, sociocultural reasons and poor and inadequate diabetes healthcare.[4]

Diabetes as one of Non-communicable diseases has allocated a large proportion of cost, time and human resources of health systems. Now, due to changes in lifestyle and industrial process, incidence of diabetes and its complications have been increased. Accordingly diabetic foot considered as a common complication of diabetes.[5]

Therefore the investigator felt the need to assess the knowledge regarding prevention of diabetic foot ulcer among diabetic patients with a view to prepare an informational leaflet.

Statement of Problem:

A descriptive study to assess the knowledge regarding prevention of diabetic foot ulcer among the diabetic patients in selected hospitals of Moodbidri and Karkala with a view to prepare an informational leaflet.

OBJECTIVES OF THE STUDY:

To assess the knowledge regarding prevention of diabetic foot ulcer.

To find out the association between knowledge score regarding prevention of diabetic foot ulcer and

selected demographic variables.

MATERIALS AND METHODS

A descriptive research design was considered appropriate for the study to assess the knowledge regarding prevention of diabetic foot ulcer of diabetic patients.. A total of 60 people 30-60 years of age were selected for the study with purposive sampling technique. The tool used for data collection was socio-demographic profile and structured interview schedule to assess the knowledge of diabetic patients regarding prevention of diabetic foot ulcer. The tool was developed through review of relevance literature and validated by the experts from the fields of Nursing. After validation of tool, pilot study was conducted on 10 diabetic patients to assess the feasibility of the study. Results of the pilot study indicated that study was feasible. Data was collected after taking written permission from the concerned authorities. Study subjects were selected and after written consent enrolled in the study. They were explained about the purpose of the study and ensured that data collected will be kept confidential and will be used only for research purpose. There were total 24 multiple choice questions regarding prevention of diabetic foot ulcer. Each correct answer carried one mark and incorrect carried zero mark. Maximum score was 24 and minimum was 0. On the basis of scores, criterion measures made were; poor knowledge (1-6), average knowledge (7-12), good knowledge(13-180 and very good knowledge 19-24).

The data collection procedure was carried out in 2rd week of August 2016. The average time for the whole procedure of data collection for one subject was 15-20 minutes. The data was analyzed by using descriptive and inferential statistics. Analysis was done with the help of statistical package for social sciences (SPSS) program. The findings were interpreted and presented with the help of tables and graphs.

RESULTS

As per socio-demographic data summarized in table 1, it can be seen that out of 60 diabetic patients, 33.3% were in 51-60 years of age group, 31.7% were above 60 years, 23.3% were from 41-50 years and only11.7% were from 31-40 years of age group. Regarding gender, half were females and remaining half were male. While talking about religion, 41.7% Hindu, 28.3% were christian, and 30% were muslim. Regarding type of family 56.7% were belonged to nuclear family and 43.3% were belonged to joint family. In regard to occupation, 48.3% were self employed, 18.3% were professionals, and 16.7% were coolie and agriculture workers. In case of income, 40% had 5001-10000/- Rs/month, 36.7% had 10001-20000/- Rs/month, 13.3% had above 20000/- Rs/month and again 10% had less than 5000/- Rs/month per capita income. 65% were had previous knowledge ,Further regarding duration of illn ess 66.75% had a duration of 5-10 years, 21.7% had duration of 11-15 years, 8.3% had duration of 16-20 years and only 3.3% had duration more than 21 years.

Table 1: frequency and percentage distribution of samples on the basis of demographic variables.

SI. No.	Demographic variables	Frequency (f)	Percentage (%)
1.	**Age in years**		
a	31-40	7	11.7
b	41-50	14	23.3
c	51-60	20	33.3
d	60 and above	19	31.7
2.	**Gender**		
a	Male	30	50
b	Female	30	50
3.	**Religion**		
a	Hindu	25	41.7
b	Muslim	18	30
c	Christian	17	28.3
4.	**Occupation**		
a	Coolie	10	16.7
b	Agriculture	10	16.7
c	Self employed	29	48.3
d	Professional	11	18.3
5.	**Type of family**		
a	Joint family	26	43.3
b	Nuclear family	34	56.7
6.	**Monthly income**		
a	Less than 5000	6	10
b	5001-10000	24	40
c	10001-20000	22	36.7
d	20001 and above	8	13.3
7.	**Previous Knowledge**		
a	Yes	39	65
b	No	21	35
8.	**Duration of Illness in years**		
a	5-10	40	66.7
b	11-15	13	21.7
c	16-20	5	8.3
d	21 and above	2	3.3

Fig. 1 Percentage distribution of subjects according to their knowledge Levels

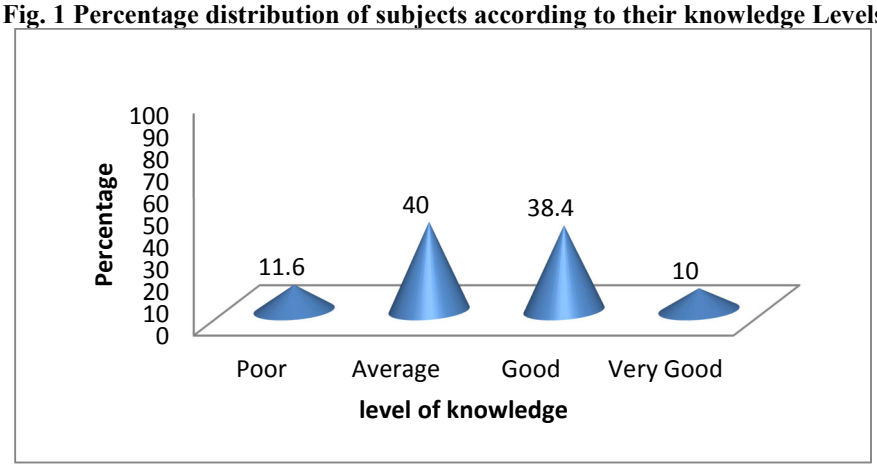

Fig. 1 depicts that 40% had average knowledge, 38.4% had good knowledge, 11.6% had poor knowledge 10% had very good knowledge regarding prevention of diabetic foot ulcer.

Table 2: Descriptive results of knowledge score

N=60

Knowledge score	Max. possible score	Min. score obtained	Max. score obtained	Mean	Median	Mean %	Standard deviation
	24	1	21	11.7	12	4.87	4.69

Table 2 depicts that The mean knowledge scores was 11.7, median 12and SD was 4.69 regarding prevention of diabetic foot ulcer.

Findings related to association of knowledge score regarding prevention of diabetic foot ulcer with selected socio demographic variables.

Calculated 'p' value is 0.26 which is greater than 0.05 hence there is no association between level of knowledge and age of diabetic patients.

Calculated 'p' value is 0.29 which is greater than 0.05 hence there is no association between level of knowledge and gender

Calculated 'p' value is 0.13 which is greater than 0.05 hence there is no association between level of knowledge and religion

Calculated 'p' value is 0.01 which is less than 0.05 hence there is association between level of knowledge and occupation of diabetic patients. Hence H2 was accepted in this condition

Calculated 'p' value is 0.54 which is less than 0.05 hence there is no association between level of knowledge and type of family.

Calculated 'p' value is 0.20which is greater than 0.05 hence there is no association between level of knowledge and monthly income.

Calculated 'p' value is 0.84 which is greater than 0.05 hence there is no association between level of knowledge and previous knowledge.

Calculated 'p' value is 0.22 which is greater than 0.05 hence there is no association between level of knowledge and duration of illness

DISCUSSION

The present study evaluated the knowledge regarding prevention of diabetic foot ulcer among diabetic patients in selected hospitals of Moodbidri and Karkala. In present study 40% had average knowledge, 38.4% of diabetic patients had good knowledge, 10% had very good knowledge and 11.6% had poor knowledge regarding prevention of diabetic foot ulcer. The findings were consistent with Kavitha M and S. Aruna. They reported that 3% of patients had adequate knowledge on acute complications of diabetes mellitus and 62% of them had moderately adequate knowledge on all chronic complications of diabetes mellitus.6 Manisha CG. Vaishali RM revealed that level of knowledge score of diabetic patients regarding foot care was 29(58%) had average knowledge, 12(24%) had good knowledge and 9(18%) had poor knowledge.7 George H, Rakesh P S, Krishna M, Alex R, Abraham VJ, George K, Prasad JH found that About 75% had good knowledge score and 67% had good foot care practice score.8 In present study, Calculated 'p' value is 0.01 which is less than 0.05 hence there is association between level of knowledge and occupation. Abu-Qamar MZ revealed that Statistically significant associations were established between level of education and knowledge ($p<0.001$) as well as practice ($p<0.006$).9

CONCLUSION

The study concluded that 40% had average knowledge, 38.4% of diabetic patients had good knowledge, 10% had very good knowledge and 11.6% had poor knowledge regarding prevention of diabetic foot ulcer. Further it was found that there was statistically significant difference of knowledge score with occupation.

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