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A STUDY TO ASSESS KNOWLEDGE ON DIABETES MELLITUS AMONG CARE GIVERS

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ABSTRACT

As India moves towards urbanization and with lifestyle changes the prevalence of chronic disorders are in rise. The most proliferated disease recognized in the world is Diabetes Mellitus. With an alarming rate India is expected to increase from 40.6 million in 2006 to 79.4 million in 2030. The sedentary lifestyle, rapid urbanization, obesity or visceral adiposity, high calorie diet and stress have been identified as major risk factors. Adding to this issue is the poor awareness among public about diabetes and its early diagnosis & prevention. The study aimed at assessing the knowledge among caregivers of the patients as they play an important role in recovery of the patients & many times neglect their own health. The objectives of the study were to assess the knowledge about diabetes among caregivers & to associate the level of knowledge with the selected demographic variables. The knowledge questionnaire focused mainly on the meaning of diabetes, early signs of recognition & its prevention. A total of 60 care givers were selected based on convenient sampling technique. Consent was obtained & data was collected using interview technique. The result of the study revealed that more than 50 percent of the sample had moderate level of knowledge (Average mean-6.683) & the association was found in few of the demographic variables like history of diabetes & source of information.

***Keywords**: Awareness, Knowledge, Diabetes mellitus, Care giver*

Introduction

Diabetes is a clinical syndrome characterized mainly by polyuria, polydipsia and polyphagia due to absolute deficiency of Insulin or diminished biologic effectiveness of it or both[1]. It is the most common non-communicable disease in India, as well as the rest of the world. With urbanization & economic growth in India the large section of population has moved towards unhealthy life styles with decreasing physical activity, increasing stress level & increasing intake of saturated fats &tobacco. Improvements in medical care facilities have increased the average life span of an individual. Rapidly aging population has fueled the growth of Non communicable diseases. Hence the load of communicable & non communicable disease is projected to get reversed in 2020 as compared to its distribution in 1990[2] Diabetes Mellitus has emerged as a major public health problem and the greatest burden is found in developing countries. Around 90 to 95 % of Diabetics throughout the world are diagnosed with Type II Diabetes Mellitus. With an alarming rate India is expected to increase from40.6 million in 2006 to 79.4 million in 2030[3].The disease leads to high levels of morbidity and mortality and has huge financial impact on individuals. Even the rural Indian population is undergoing lifestyle transition due to socioeconomic growth which can also be cited as a reason for increasing incidence of diabetes in rural areas.

Keeping in view the above needs of assessing and educating the public the present study was aimed at assessing the knowledge on Diabetes among caregivers as they are the population who will be spending 6 to 8 hours in the same dwelling as patients.

Materials & Methods

An evaluative approach was adopted for the study to assess knowledge on diabetes among care givers of patients. This study was conducted in selected hospital of Bangalore during November 2020.The sample of the study consisted of 60 care givers based on convenient sampling method. Data was collected through interview technique on one-to-one basis. A structured interview schedule was which consisted of two sections. Section I addressed the demographic variables & Section II comprised of 15 knowledge assessment questionnaires on Diabetes Mellitus. The Interview session was followed by delivering health education related to various aspects of Diabetes Mellitus. The collected data was analyzed using descriptive and inferential statistics.

Results

Demographic variables were analyzed using descriptive statistics and were presented in the terms of frequency & percentages

Table - 1 : Frequency and Percentage Distribution of Demographic Variables N 60

Sl. No.	Variable	Frequency (f)	Percentage (%)
1	Age		
	30-40 years	32	54
	40-50 years	14	23
	50-60 years	11	18
	Above 60 years	03	05
2	Gender		
	Male	27	33
	Female	45	55
3	Marital Status		
	Single	03	05
	Married	55	91
	Divorced	01	02
	Widowed	01	02
4	Educational status		
	Illiterate	18	30
	Intermediate	19	32
	SSLC	04	6
	Graduate	19	32
5	Occupation		
	Unemployed	26	43
	Business	16	27
	Private Employee	15	25
	Govt Employee	03	05
6	Family H/O D.M		
	Yes	14	23
	No	46	77
7	H/O Diabetes		
	Yes	05	08
	No	55	92

8	Recent Check of Blood Sugar Yes No	 25 35	 42 58
9	Source of Knowledge related to DM Media Relatives Friends Health Care Professionals	 28 20 08 04	 47 34 13 06
10	Diabetes is a life threatening disorder Yes No Not sure	 11 43 06	 18 72 10

The distribution of the sample based on demographic variables revealed that most of the sample (55%) was females and 91 % were married. The results also reveal that though majority (92%) of the sample were non diabetic only 58% of the sample had recent blood sugar checked. Most of the sample (47%) seeked information from Media and majority (72%) were considering Diabetes as non-life threatening condition. The collected data based on knowledge questionnaire was subjected to inferential statistics. The results revealed as follows

Table - 2 : Frequency & percentage distribution of samples based on their level of knowledge on Diabetes Mellitus N 60

Level of Knowledge	Range of Scores	Frequency(f)	Percentage (%)
Adequate	11-15	01	1.6
Moderate	6-10	50	83.4
Inadequate	0-5	09	15

Table - 3 : Association Between the knowledge Score of Diabetes Mellitus & selected Demographic Variables N 60

Sl.No.	Variable	Median & Below Median	Above Median	$\chi 2$
1	Age Below 50 years Above 50 years	 35 11	 11 03	 0.037
2	Gender Male Female	 21 25	 6 8	 0.039
4	Educational status No Formal Education(Illiterate) Formal Education	 17 33	 01 09	 2.285

5	Occupation Unemployed Employee	 23 23	 03 11	3.582
6	Family H/O D.M Yes No	 11 34	 03 12	0.1242
7	H/O Diabetes Yes No	 05 12	 01 42	9.9316****
8	Recent Check of Blood Sugar Yes No	 20 26	 06 08	0.0017
9	Source of Knowledge related to DM Media(Tv /Mobile/Paper) Others	 20 28	 9 3	4.2714****
10	Diabetes is a life threatening disorder Yes No/Not Sure	 04 27	 08 21	2.0189

****: Significant χ^2 : 3.864: P<0.05

The results of the study revealed significant association between knowledge score & History of Diabetes among care takers. The findings also revealed that there was a significant association between knowledge scores of care takers and the source of knowledge.

Other Major Findings of the Study:

1. Majority (68%) of the sample were aware that cuts & wounds heal slowly among diabetics
2. Most of the sample (63%) was aware that diabetes mellitus can damage kidneys & that it can lead to decreased sensitivity of fingers & feet
3. 55% of the sample responded that eating too much of sugar and sweet foods causes diabetes & if untreated the amount of sugar rises in blood

Discussion

The study aimed at assessing the knowledge among caregivers of the patients attending selected hospital of Bangalore. The major findings of the study revealed that the caregivers (83.4%) have a moderate knowledge related to risk factors & signs and symptoms .The mean average score of the study being 6.683 emphasizes the need to create awareness about diabetes among general public. The study results are in congruent with the study findings of reviewed literatures

The study recommends the need for health education on all aspects of Diabetes Mellitus. There is a critical gap in risk factors and life style modifications required for the prevention of Diabetes. Since there was a strong association(χ2-9.9316 @p<0.05.df-1) found among the demographic variables like history of diabetes in self & level of knowledge the study concludes that a person will seek information & will educate himself only after being affected with the disorder.

Conclusion

The study also reveals the association between media as the source of information & knowledge level which concludes that effective usage of media with an evidence based information can be useful in bringing awareness among general public. Increased efforts thus needs to be put across through Diabetic Education Programmes

which will definitely bring down the morbidity & mortality occurring due to Diabetes Mellitus

Conflict of Interest: None

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