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Knowledge, attitude & practice (KAP) of diabetes in Berhampur, Odisha, India- an observational study

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Abstract

Diabetes mellitus type -2 is a silent disease and a group of metabolic disorders which results high blood glucose level for a long period due to lack of insulin production ,less insulin action now recognized as one of the fastest growing chronic disease to public health in almost all countries of the world and leading cause of Morbidity and Mortality. Positive knowledge, Attitude, Practice (KAP) are important for Diabeties patients and the level of awareness of general population is needed. The present study is planned with the aim to determine the level of K AP about T2DM among diabetic patients in a urban settingsof Berhampur, at M.K.C.G. Medical college & hospital, Ganjam, Odisha, India. The study was conducted at M.K.C.G. Medical College & Hospital, Berhampur, Ganjam, Odisha which is a field practice area of Department of Endocrinology. The study was conducted between 1st may and 15th may. KAP study is an important parameter to validate theawareness about Diabetes mellitus type-2 .Need for the study is required To assess the knowledge and knowledge on practice of self-care management of patients with diabetes mellitus. KAP (Knowledge,Attitude,Practice)The Institutional Ethics Committee clearancewas duly sought before the conduct of study. Attitude and Practice questionnaire was prepared as described after establishing its validity of the patients. Mean score of KAP of Type-II Diabetes mellitus is calculated from the questionnaire prepared for KAP Studies.

Key Words: KAP Study, T2DM, Urban Area.

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Introduction

DM is a group of metabolic disorder characterized by Excess of glucose in blood level. It is associated with abnormalities in carbohydrates, fat & protein metabolism & results in chronic complications including microvascular, macrovascular & neuropathic disorders. Diabetes mellitus is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin or because cell do not respond to the insulin that is produced. The high blood sugar produces the common symptoms of polyuria, polydipsia and polyphagia. India has a population of 77 million diabetic in adult and the WHO estimates that this figure will raise to 101 million by 2025. The prevalence of diabetes mellitus is increasing throughout the globe at an alarming rate with India being the diabetes capital of the world. Health is a dynamic process because it is always changing. We all have times of good health, times of sickness & even times of serious illness. So KAP studies is an important parameter for observational cases. KAP consists of three components- knowledge, attitude, and practice. These types of studies are a good way to assess health care delivery or preventive behaviour to protect against the problem and disease. Surveys are used tomeasure what

individuals know about the disease or health problem. KAPstudies are easy to conduct, measurable, and easily capable of being accounted for this makes these studies a useful survey methodology. Knowledge: It is a process of acquiring facts, information and skills through one's own experience or learning. It's a process of learning in a systematic manner [1,2].

Attitude

A learned tendency or readiness to evaluate things or react to some ideas, persons or situations in certain ways, either consciously or unconsciously. Attitudes are underpinned by values and beliefs and have an influence on behaviour [3,4].

Practice: A regular event at which something is done again and again toincrease skill soccer practice [5,6.

Materials & Methods

The study was conducted at M.K.C.G. Medical College & Hospital, Berhampur, Ganjam, Odisha which is a field practice area of Department of Endocrinology. The study was conducted between 1st may and 15th may. A KAP (Knowledge, Attitude and Practice) questionnaire was administered as described after establishing its validity to the local population as described below.50 patients profile form also prepared and each individual patients profile form duly signed by head of the department of endocrinology, M,K,C,G Medical & Hospital, Berhampur, Odisha. Here I have enclosed 02 Patients ProfileForm for Establishing the validation.

Establishing validity of the questionnaire

Initial work-up

Establishing validity participants underwent a KAP Questionnaire survey regarding assessing Diabetes, socio-demographic.

This process was aimed at arriving at a questionnaire wherein questions were precise, appropriate and acceptable to respondents. We also tested the layout at this stage to ensure that field investigator can navigate his way easily through the questionnaire.

The KAP questionnaire consisted of 20 questions (Knowledge-08, Attitude-05, and Practice-07).

Setting

M.K.C.G. Medical College & hospital, Berhampur, Ganjam,Odisha

Duration of the study

It was carried out over a period of 15 days from 1st May to 15th May.

Type of the study

This is an observational study.

Sampling Methodology

Simple random sampling.

Sample size calculation

A total of 50 study subjects (50 diabetics) were interviewed. It was done by a statistician the sing formula of sample size calculation for observational studies.

Inclusion criteria

Diabetics subjects of age between 18- 65 years with skills of reading and writing; either Hindi or Odia.

Ethical consideration

The study was approved by the Institutional Ethics committee. There is no conflict of interest and the study was conducted after taking informed consent from all the participants and participants' information and data were kept confidential.

Data Collection Procedure

It was conducted in form of a Questionnaire based interview at the Department of Endocrinology, M.K.C.G. Medical College & Hospital, which patients in super- Specialty hospitals. All study subjects who fulfilled the inclusion criteria were interviewed. All the study subjects were explained in detail about the purpose of the study and informed consent was taken for their participation and they were assured about the confidentiality and privacy of their responses. The questionnaire was available in the English language & all the questionnaires have been asked in the language of Odia. A pilot study under the guidance of Mr. Santunu kumar Hotta, was done to pretest the questionnaire which helped in validating this questionnaire before finalizing it. Questionnaire was divided into 3 sections – firstsection contains Knowledge of respondents toward diabetes, second section had Various risk factors & complication of diabetes as stated by the patients & the last section of questionnaire included Healthcare-seeking behavior of the diabetes patients

Data Analysis

The collected data was initially entered into Microsoft Excel. The number and percentage of gender, age group, types of family, education, occupation, types of food habits, and types of diabetes mellitus were determined. Also, knowledge of respondents toward Diabetes, its risk factors, health-seeking behaviour& complications were assessed with the help of questionnaire prepared.

1. Detcription of Demographic Variable of Patientt with Diabetet Mellitut

S. No.	Population Statistics	Frequency (F)	Percentage (%)
0	Age		
1.	a) 30-40 b) 41-50	0 3	6 %
	c) 51-60 d) 61-70 e) 71-80 f) 81-90	0 8 1 8 1	16 %36 % 32
		6	%
		0	8
		4	%
		0	2
		1	%
0	Sex		
2.	Male Female	3 1 1	62 % 38
		9	%
0	Family Structures Joint family Nuclear family		
3.		1 4	28 %
		3	72
		6	%
0	Education Illiterate Higher secondary Graduated		
4.		1 5	30 %
		1	38
		9	%
		1	32
		6	%
0	Occupation Business Self employment Others		
5.		1 7	34 %
		1	28
		4	%

		1 9	38 %
0	Types of food habits vegetarian Non Vegetarian		
6.		1 2	24 %
		3	76
		8	%
0	Types of diabetes mellitus Insulin dependent Non insulin dependent		
7.		1 1	22 %
		3	78
		9	%

2. Knowledge of respondents toward diabetes

		Study	
Knowledge	Responses	Numbers of patient	(%) of patient
Do you believe that diabetes is caused by	Yes	2	42
		1	%
Eating more sweet?	No	1	34
		7	%
	Don't know	1	24
		2	%
Frequently urination and frequent thirst	Yes	2	42
		1	%
Are symptoms of diabetes?	No	1	38
		9	%
	Don't know	1	20
		0	%
Diabetes is a communicable disease that	Yes	1	36
		8	%

Spread from person to person?	No	1	38
		9	%
	Don't know	1	26
		3	%
Is Diabetes curable?	Yes	2	46
		3	%
	No	2	42
		1	%
	Don't know	0	12
		6	%
Diabetes is a condition in which there is	Yes	1	32
		6	%
resistance to insulin or lack of insulin in	No	1	36
		8	%
The body ?	Don't know	1	32
		6	%
Is diabetes person required to do self	Yes	1	32
		6	%
Monitoring of glucose at home?	No	2	48
		4	%
	Don't know	1	20
		0	%
Do you think diabetes is increasing day	Yes	2	40
		0	%
By day?	No	1	34
		7	%
	Don't know	1	26
		3	%
What is the source of your knowledge	Television	0	0 %
		0	
regarding diabetes?	Newspaper	0	16
		8	%
	Relatives	0	16
		8	%
	Diabetes Educator	3	34
		4	%

3. Various risk factor & complication diabetes test

Risk Factors	ResponseS	Study	
		Number of Patients	(%) Of Diabetes
Lack of physical activity, obesity and	Yes	1	26
		3	%
Stress are risk factors of diabetes?	No	2	46
		3	%
	Don't know	1	28
		4	%
Do you think diabetes is related to	Yes	1	38
		9	%
lifestyle?	No	1	32
		6	%
	Don't know	1	30
		5	%
The eye can be illuminated due to	Yes	1	28
		4	%
Uncontrolled sugar?	No	2	54
		7	%
	Don't know	0	18
		9	%
Uncontrolled sugar can cause damage	Yes	1	26
		3	%
To Heart, Kidney and nerves?	No	2	28
		4	%

	Don't know	13	26 %
Diabetes person should undergo for an	Yes	2	42
annual		1	%
Check-up of eye, heart, kidneys, teeth	No	2	58
& foot?		9	%

4. Healthcare-teeking behavior of the diabetes patient

Item	Response	STUDY	
		Number of patients	(%) of diabetes
How long you exercise daily?	<30min.	12	24
			%
	30-40min.	09	18
			%
	>45min.	06	12
			%
	Never	23	46
			%
Do you keep some sugar or toffee before	Yes	07	14
			%
You Leave home? (carbohydrate)	No	43	86
			%
Do you smoke or any other addiction?	Yes	23	06
			%
	No	27	54
			%
How frequently do you consult a	15 days	06	12
			%
doctor for Sugar control?	1 month	20	40
			%
	6 month	10	20
			%
	1 year	04	08
			%
	Doctors advise	10	20
			%
Do you clean your feet with water every day	Yes	06	12
			%
Before sleeping & applies some oil or	No	44	88
cream?			%

Do you check your blood sugar by	Yes	12	24%
glucometer At home?	No	38	76%
How often do you eat sugar / sweets?	Never	23	46%
	Daily	09	18%
	2-3 times a week	18	36%

5. Mean Knowledge, Attitude, Practice score of the T2DM Patient

Parameter	Meanvalue
Knowledge	16.92± 2
Attitude	17.85± 1
Practice	17.5±2
Total Mean	52.27±3.5

Results

A total of 50 patients were enrolled during the study period comprising of 31 males and 19 females. Age wise distribution of thepatients shows that 82% of them were ≥50 years of age. Mean age of subjects was 57.2 years. 62% of them were either illiterate or Graduated up to secondary level & Other characteristics like age, sex, family structures, education, occupation, types of food habit, types of diabetes mellitus descripted in Table depicted in Table 2. The proportion of subject who answered correctly to knowledge, attitude and practice questions is depicted in table (2,3,4). Regarding knowledge of disease, 42% of diabetes patients knew about causes and symptoms. 42% had knowledge about accurate method to monitor DM, well balanced diet and treatment which was a very less significant in urban patients. The study subjects knew less (32%), about regular urine glucose testing &. Only 54% of the diabetes patient undertook physical exercise regularly while 46% were following diet control plan. A cause of major concern was that 76% of the patients reported missing of diabetic medication. When asked if they should keep in touch with their physician, 72 % of them replied in positive. The mean scores of knowledge, attitude and practices were 16.92±2, 17.85±1, 17.5±2 respectively. The overall mean KAP score was 52.27±3.5.

Discussion

The outcome of the study shows that the level of knowledge regarding D M in diabetic patients was very less significant in the urban area of India with36.75% of correct responses. One interesting feature in the present study was usage of internet as the source of information among the patients. Although a miniscule 5.65% were using it to get information about the disease yet it reflects a healthy trend of internet penetration in rural areas of India.

Conclusion

Lack of Knowledge, poor attitude & and insufficient practice were found in this surveyed community. Level of Education and Educational programs on Diabetes was the most significant contributing factors. Attitude & practice of patients were fairly good but knowledge was not up to the mark. Public health Programs involving educational interventions and behavioral change is the need of the hour for better control & management of the disease both in urban & rural areas. The current study suggest the need of structured educational

programmes on Diabetes and its complications on a regular basis to assist patients in living a productive Life. Background to reduce the Morbidity and Mortality, awareness regarding Diabetes and its Complications are necessary.

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Author Contribution

All authors contributed equally.

Conflict of Interest

The authors declared no conflict of interest.

References

1. Gupta RK, Shora TN, Jan R, Raina SK, Mengi V, Khajuria V. .Indian J Comm Heal th. 2015; 27, 3: 327-333.
2. Goyal J, Raghav S, Kumar N, Singh Bhatia P, Bajpai P. Knowledge attitude and practice (KAP) of diabetes in Mathura Uttar Pradesh - An observational study. Int J Med Res Rev [Internet]. 2019Dec.14 [cited 2022Jul.7];7(6):482-9. Available from: https://ijmrr.medresearch.in/index.php/ijmrr/article/view/1102W.W.W.Medlie.com
3. http://www.sciencedirect.com
4. https://manuscriptscientific.com
5. https://pubmed.ncbi.nlm.nih.go
6. https://www.academia.edu
7. http://www.ijpsrjournal.com
8. https://pubmed.ncbi.nlm.nih.gov