



Research Article

ASSESSMENT OF DIETARY PATTERN AND LIFESTYLE OF DIABETIC PATIENTS OF REWA CITY, INDIA

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ABSTRACT

Sixty diabetic patients (15 male and 45 female) were selected from M.R. Singhal Nursing Home of Rewa city, India. General profile, disease history, dietary pattern and lifestyle related information were collected by using questionnaire. Disease history of patients related to onset age of diabetes, family history and prevalent symptom. Dietary information of the patients was to know about their food habits and frequency of food group consumption. The activity pattern of the patients was recorded from their type of work. Anthropometric measurement like height, weight and Body Mass Index were recorded. The most common cause of diabetes among selected patients was obesity and sedentary lifestyle. 90 % diabetic patients had no diabetic history. The majority (55 % and 21.66 %) of diabetic patients were overweight and obese. It was found that the majority (76.66 %) diabetic patients were vegetarian. More than seventy five percent diabetic patients were consuming cereals twice a day. The majority (83.34 %) of diabetic patients was consuming pulses twice a day. The majority (70 %) of diabetic patients were GLVs twice a day. Maximum (66.66 %) diabetic patients have never consumed root and tuber. The majority (53.33 %) of diabetic patients was never consuming fruits. Higher percentage (66.64 %) of diabetic patients was consuming milk products. 30 % of diabetic patients were consuming fried food once a day.

Keywords: Type 2 diabetes mellitus, dietary pattern and lifestyle.

INTRODUCTION

India, the world's second most populous country, now has more people with type 2 diabetes (more than 50 million) than any other nation. With India having the highest number of diabetic patients in the world, the sugar disease is posing an enormous health problem in the country. Calling India the diabetes capital of the world, the International Journal of Diabetes in Developing Countries says that there is alarming rise in. According to a WHO fact sheet on diabetes, 2004 recorded an estimated 3.4 million deaths due to consequences of high blood sugar. WHO also estimates that 80 per cent of diabetes deaths occur in low- and middle-income countries and projects that such deaths will double between 2005 and 2030. A glance at statistics from Global Data proves one point: that the two countries having the highest diabetes prevalence (India and China) score quite low when it comes to the expenditure on the disease. The general objective of this study was that the assessment of dietary practice and lifestyle factors of diabetic patients of Rewa city, India.

MATERIAL AND METHOD

The study was conducted at the M.R. Singhal Memorial Nursing Home situated in the Allahabad road Rewa city, India. A total of 60 diabetic subjects (15 males and 45 females) were selected by the using purposive sampling method. Pretested questionnaire schedule was used to collect information on various aspects like general profile, disease history, anthropometric measurements and life style factors etc. Information on consumption of alcohol, smoking and tobacco chewing consumption were recorded by interviewing the subjects personally. Exercise pattern and type were noted by asking orally. Anthropometric measurements like height (cm), weight (Kg), were recorded. The height was measured with the help of the anthropometric rod to the nearest 0.01 cm. The subjects were weighed on a portable platform weighing balance to nearest 0.5 Kg with light cloths, without support and footwear. Information about dietary pattern and consumption of food groups were collected by using twenty four hours dietary recall and food frequency questionnaire. The collected data were tabulated and statistically analyze. Ethical committee No. 15/2009

RESULT AND DISCUSSION

Table 1: Demography of patients

Demographic feature analyzed		Frequency of distribution	
		No.	%
Total No. of patients		60	100
Gender	Male	15	25
	Female	45	75
Age	26-45 years	18	30
	46-65 years	38	63.33
	Above 65 years	4	6.64
Education status	Postgraduates	3	5
	Graduates	9	15
	Higher secondary	5	8.33
	High school	1	1.66
	Primary	8	13.33
	Illiterate	37	61.66
BMI	Underweight	1	1.66
	Normal weight	10	16.66
	Overweight	13	21.66
	Obese	33	55
Food habits	Vegetarian	46	76.66
	Non-vegetarian	14	23.34
Family history		6	10
Addiction	No addiction	45	75
	Smoking	2	3.34
	Tobacco	12	20
	Smoking and tobacco	1	1.66
Physical activity	Sedentary	50	83.33
	Moderate	8	13.33
	Heavy	2	3.33
Employment	Unemployed	45	75
	Self-employed	1	1.66
	Private job	3	5
	Government job	7	11.67
	Retired	4	6.67

It was observed that the majority (75 %) of diabetic patients were female while very few (25 %) were male. The above table shows the association of type 2 diabetes mellitus with sex. The most (63.33 %) of diabetic patients have belonged to 46-65 year age group. Remaining 30 % and 6.64 % diabetic patients were belonging to 26-45 years age group and above 65 years age group. Prasnath NV *et al* study was shown that the majority of diabetic patients were belonging to 46- 60 years this study was similar to our study. It was found that more than sixty percent diabetic patients were illiterate. Out of total subject only 5 % diabetic patients were postgraduate. There were 15 % of diabetic patients were graduate. Remaining 8.33 %, 1.66 % and 13.33 % diabetic patients were having high secondary, high school and primary school certificate. It was observed that more than half percent of diabetic patients were obese and 21.66 % diabetic patients were overweight. Rest of them 1.66 % was under weight and 16.66 % diabetic patients were normal weight. The study was

indicating that the majority (76.66 %) diabetic patients were vegetarian and the rest of them were 23.34 % were non-vegetarian. Prasnath NV *et al* study was shown that the majority of diabetic patients were non-vegetarian this study different to our study. Data reveal that only 10 % diabetic patients had a family history of diabetes. Majority (75 %) of diabetic patients were not addict and rest of them 3.34 %, 20 % and 1.66 % diabetic patients were smoker, tobacco addict and smokers and tobacco addict. The study was indicate that a higher percent (83.33) of diabetic patients were sedentary worker and remaining 13.33 % and 3.33 % diabetic patients was moderate and heavy worker. Data reveal that maximum number (45) of diabetic patients were unemployed they were housewives and rest of them 1.66 %, 5 %, 11.67 % and 6.67 % of diabetic patients were self-employed, private job, government job and retired. Weakness, weight loss and poly urea was found as symptoms of diabetes in majority of (76 %, 69 % and 65 %) diabetic patients.

Table 2: Frequency of consumption of different food groups by the diabetic patients

Food items	No. of time a day								No of times a week								occasionally		Never	
	1		2		3		4		1		2		3		4		No	%	No	%
	No	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No	%	No	%		
Cereals	-	-	44	73.34	16	26.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulses	10	16.66	50	83.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green vegetable	-	-	42	70	18	30														
Root and tubers	4	6.66									7	11.66					9	15	40	66.66
Fruits	6	10	-	-	-	-	-	-	-	-	10	16.66	-	-	-	-	12	20	32	53.33
Flesh food and egg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	23.34	46	76.66
Milk product and milk	-	-	20	33.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	66.64
Fried food	18	30	-	-	-	-	-	-					26	43.34					16	26.66

Above table show that unrefined wheat flour was their staple diet with an intake 73.34 % of diabetic consumed it twice a day and 26.66 % of diabetic patients consumed it three times a day. Pluses were consumed by majority (83.34 %) of diabetic patients twice a day while 16.66 % consumed it once a daily. 70 % diabetic patients consume GLVs twice a day and 30 % GLVs three time a day. The least number of (6.66 %) diabetic patients consume root and tubers once a day. 11.66 % patients consumed it twice a week and 15 % of diabetic patients consume it occasionally. 66.66 % diabetic patients never consumed it. Only 10 % diabetic patients consumed fruits once a daily. 16.66 % diabetic patients consumed it twice a week. 20 % diabetic patients consume it occasionally. Majority (53.3 %) patients were never consumed fruits. A higher percent of (76.66 %) diabetic patients were never consumed flash food. The majority (66.66 %) of diabetic patients was never consumed milk product. Only 33.3 % patients were consumed it twice a day. 30 % diabetic patients consume fried food once a day. 43.34 % diabetic patients consumed it thrice a week. 26.66 % diabetic patient's never consumed fried food. As reported by the patients, the majority (70 %) of them was consumed only two major meal rest of them 19 % and 11 % were consuming three major meals and two major meals /one snack.

CONCLUSION

In the present study it was concluded that the dietary habits and lifestyle of diabetic patients of Rewa city, India was not healthy. Diabetes can only attribute to the obesity, faulty food

habits and sedentary lifestyle. Gender and age was also a relevant factor. It was observed that the female diabetic patients were more susceptible than male diabetic patients for type 2 diabetes mellitus.

Suggestion

- Improving the literacy rate of the female.
- Appoint a dietician in every hospital and Nursing home
- As well as possible generalize the information about healthy food habits and lifestyle.

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