

To assess the health status among male and female type 2-diabetic patients

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Abstract

Diabetes is a chronic metabolic disorder that prevents the body to utilize glucose completely or partially. People are greater risk of diabetes due to improper dietary practice, unhealthy life style, lack of physical exercise. The present study was conducted to assess the health status among male and female diabetic patients. multistage stratified sampling technique was used for selecting 100 samples in both male and females and an interviewed scheduled was evolved to collect information regarding socio-economic profile, dietary pattern etc. dietary intake between male and females diabetic was very highly significant but age, BMI, Nutrients Intake etc. between male and females diabetic were insignificant. Consumption of high carbohydrates, fat diet was revealed as the major contributing cause of disease in both male and females.

Key word: Diabetes chronic metabolic disorder, BMI, Nutrients Intake.

Introduction

Diabetes mellitus is a chronic metabolic disorder that prevents the body to utilize glucose completely or partially. In contrast, insulin deficiency in a poorly controlled exercise results in increases in glucose concentration and free fatty acids release continues with minimal uptake. This can result in large increase in plasma glucose and ketone levels. Observational studies addressing physical activity, weight loss, and dietary intake of whole grains and fiber etc. provided evidences for factor that might delay or prevent type-2 diabetes¹. Diabetes is one of the most common diseases in the countries. People are greater risk of diabetes due to improper dietary practice, unhealthy life style, socioeconomic situation, mental stress and lack of physical exercise². Too much fat especially saturated from meat or dairy product contains too much sugars calories, and not enough whole grains, fruits and vegetables are the primary dietary problem challenging the population. The present study is an attempt to them to Assess the health status through anthropometric measurement. Among Male And Female Type 2- Diabetic Patients. Dietary intake with focus on the nutritional status vegetarian and non vegetation diet in the occurrence of the diseases.

Material and Methods

The study is carried out in 100 diabetic male and female diabetic subjects from local hospitals from Agra city. Multistage stratified random sampling technique was used in the selection of samples. An interview schedule was evolved to collect the information regarding socio-economic profile, dietary information and specific information regarding this disease. Nutrient intake was assessed by 24 hrs food recall method. The subjects were asked to report the food items consumed along with their raw ingredients. These were recorded in standard volumetric method and later it is converted in raw weight of foods i.e. groups and nutritive values was calculated using the food tables as per recommended by ICMR.

Table-1 reveals the distribution of male and female respondent according to age. Out of 100 diabetic patients, majority of them (45.00%) were in the age group of 55-65 yrs, followed by 21.00% in the age group of 65-75 yrs and the minimum 8.00% in the age group of 75-85 years. Out of the male diabetic patients, majority of them (33.33%) were in the age group of 55-65 and 65-75 years, followed by 12.50% each in the age group of 75-85 years and 35-45 yrs and the minimum 8.33% were in the age group 45-55 yrs. Out of the female diabetic patients, majority of them

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(51.92%) were in the age group of 55-65 years, followed by 25.00% in the age group of 45-55 years and the minimum 3.84% were in the age group 75-85 years. Further table shows that mean age of male diabetic patients was found to be 58.01 yrs which was more among male diabetic patients (61.08) as

compared to female diabetic patients (55.17 yrs). Statistically, significant difference regarding mean age was observed between male and female diabetic patients ($t = 2.988, p < 0.05$).

Table 1 – Distribution of male and female respondent according to age.

Age in Years	Sex of the respondents				Total	
	Male		Female			
	No.	%	No.	%	No.	%
35-45	6	12.50	5	9.61	11	11.00
45-55	4	8.33	13	25.00	17	17.00
55-65	16	33.33	27	51.92	45	45.00
65-75	16	33.33	5	9.61	21	21.00
75-85	6	12.50	2	3.84	8	8.00
Total	48	48.00	52	52.00	100	100.00
Mean	61.08		55.17		58.01	
SD	11.46		8.16		16.31	
t	2.088					
P	<0.05					

Table 2 – Distribution of the Male and female respondents according to Height

Height in Cms	Sex of the respondents				Total	
	Male		Female			
	No.	%	No.	%	No.	%
145-155	6	12.50	14	26.92	20	20.00
155-165	20	41.61	30	57.69	50	50.00
165 and above	22	45.83	8	15.38	30	30.00
Total	48	48.00	52	52.00	100	100.00
Mean	163.38		157.52		160.33	
SD	7.58		6.41		7.49	
t	4.247					
P	>0.05					

Above table highlights the distribution of Male and female respondents according to height. Out of the 100 diabetic patients, majority of them (50.00%) were having height of 155 cms, followed by 30.00% having the height of 165 cms and above and minimum (20.00%) were having the height of 145 cms. Out of the male diabetic patients, majority of them (45.83) were having the height of 165 cms and above, followed by

41.61 % having the height of 155 cms and minimum (12.50%) were having the height of 145 cms. Out of the female diabetic patients, majority of them (57.69%) were having the height of 155 cms, followed by 26.92 % having the height of 145 cms and minimum (15.38%) were having the height of 165 cms and above. Further table shows that the mean height of diabetic subjects was found to be 160.33 cms which was more among

male diabetic subjects (163.38 cms) as compared to female diabetic subjects (157.52cms) Statistically Significant difference regarding mean height between

male and female diabetic subjects was observed ($t=4.247, p<0.05$)³.

Table 3 – Distribution of the Male and female respondents according to weight

weight in Kgs	Sex of the respondents				Total	
	Male		Female		No.	%
	No.	%	No.	%		
40 -50	0	0.00	5	9.61	5	5.00
50 -60	12	25.00	10	19.23	12	22.00
60 -70	18	37.50	21	40.38	39	39.00
70 – 80	15	31.25	14	26.92	29	29.00
80 -90	3	6.25	2	3.84	5	5.00
Total	48	48.00	52	52.00	100	100.00
Mean	64.90		62.97		63.74	
SD	9.82		10.40		10.18	
t	1.910					
P	>0.05					

Above table highlights the distribution of Male and female respondents according to appetite. Out of the 100 diabetic patients, majority of them (39.00%) were having the weight of 60 – 70 kg,, followed by 29.00% having the weight of 70 -80 kg and minimum (22.00%) were having the weight of 50 -60 kg.out of the male diabetic patients, majority of them (37.50%) were having the weight of 60- 70 kg,, followed by 31.25 % having the weight of 70 -80 kg and minimum (25.00%) were having the weight of 50 -60 kg.

Out of the female diabetic patients, majority of them (40.38%) were having the weight of 60 -70 kg, followed by 26.92 % having the weight of 70 -80 kg and minimum (19.23%) were having the weight of 50 -60 kg. further table highlights that the mean weight of diabetic patients was found to be 63.74kg which was more among male diabetic patients (64.90 kg) as compared to female diabetic patients (62.967kg). Statistically , no significant difference regarding mean weight between male and female diabetic patients ($t=1.900, p>0.05$).

Table 4 – Distribution of the Male and female respondents according to blood sugar level

Blood sugar level (mg/dl)	Sex of the respondents				Total	
	Male		Female		No.	%
	No.	%	No.	%		
Below 100	11	22.91	5	9.61	16	16.00
100-150	16	33.33	12	23.07	28	28.00
150-200	8	16.67	12	23.07	20	20.00
200-250	6	12.50	18	34.61	24	24.00
250-300	7	14.58	5	9.61	12	12.00
Total	48	48.00	52	52.00	100	100.00
Mean	156.42		176.00		166.60	
SD	65.25		55.43			
t	1.621					
P	>0.05					

Table-2 reveals the distribution of the Male and female respondents according to blood sugar level. Out of 100 diabetic patients, majority of them (28.00%) were having the present blood sugar level of 100 -150, followed by 24.00% having the present blood sugar level of 200 -250 and the minimum 12.00%. having the

present blood sugar level of 250 -300. Out of the male diabetic patients, majority of them (33.33%) were having the present blood sugar level of 100-150, followed by 22.91% having the present blood sugar level of below 100 and minimum 12.50% were having the present blood sugar level of 200 -250. Out of the

female diabetic patients, majority of them (23.61%) were having the present blood sugar level of 200-250, followed by 23.07% having the present blood sugar level of 100–150 and 150-250 and minimum 9.61% each were having the present blood sugar level of below 100 and 200-300 respectively. Statistically no

significant difference regarding mean present blood sugar level was observed between male and female diabetic patients even at 5% level of significance. This difference might be occurred due to performing exercise, restricted diet and taking proper medicine

Table 5– Distribution of the Male and female respondents according to use of medicine.

Use of medicine	Sex of the respondents				Total	
	Male		Female			
	No.	%	No.	%	No.	%
Medicine	48	48.00	52	52.00	100	100.00
Insulin	0	0.00	0	0.00	0	0.00
Total	48	48.00	52	52.00	100	100.00

Above table highlights the distribution of Male and female respondents according to use of medication. out of the 100 diabetic patients, all of them (100.00%) used

medicine to control diabetes. Similar findings was reported by male and female respondents.

Table 6 – Distribution of the Male and female respondents according to Food habit

Food Habit	Sex of the respondents				Total	
	Male		Female			
	No.	%	No.	%	No.	%
Vegetarian	37	77.08	32	61.53	69	69.00
Non Vegetarian	11	22.92	20	38.47	31	31.00
Total	48	48.00	52	52.00	100	100.00

Above table highlights the distribution of Male and female respondents according to use of medication. Out of the 100 diabetic patients, all of them (100.00%) used medicine to control diabetes. Similar findings were reported by male and female respondents.

Conclusion

From the study it is evident that nutritional status of both male and female diabetic patients were highly significant but contrary the results like age, I, blood sugar level, food habit profile etc. in both diabetic patients showed insignificant. It may be due to poor nutritional status, poor diet and lack of exercise etc.

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