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A STUDY ON LIFE STYLE AND DIETARY PRACTICES OF DIABETICS IN TIRUPATI

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ABSTRACT

Diabetes mellitus or "Madhumeham" has been known for centuries as a disease selected to sweetness. In persons with diabetes, there will be too much sugar in blood and urine. Prevalence of diabetes is steadily increasing worldwide particularly in the developing countries. Epidemiological studies shows that the prevalence rate of diabetes is through aetiological factors, sedentary lifestyles, diet and their habits play a major role in diabetes. Prevalence of diabetes is steadily increasing Worldwide particularly in the developing countries. The present study is aimed to carry with the objectives to assess the life style habits of cigarette smoking and alcoholism among male diabetic patients accelerates the risk of diabetes. In case of females, though cigarette smoking and alcoholism are not observed, majority of them (80%) lead tension life in one way or other which aggravates the condition of diabetes. The study results highlighted the immediate need of adopting healthy life style practices in both male and female diabetics to minimize the risk levels of diabetic condition.

Keywords: Diabetes, aetiological factors, lifestyle and diet.

INTRODUCTION

Diabetes mellitus is one of the leading causes of death and it ranks third among the chronic diseases. It is gaining ground throughout the World; in both developed and developing countries. Diabetes is an ancient disease. Its symptoms have been found described on an Egyptian papyrus the Ebers papyrus – dating about 1500BC. In the first century the Greek physician Aretaeus wrote of a malody, in which the body "Ate its own flesh and gave of large quantities of urine. He gave it the name diabetes from the Greek word meaning siphon or to pass through". Much later in the seventeenth century the word mellitus from the Latin word for honey was added because of the sweet nature of the urine. Diabetes is prevailing throughout the World since ancient times; the incidence of it is increasing at an alarming rate in India, today. It was estimated that India which had 19.4 million diabetics in 1995 is expected to register a near threefold increase by 2025 (Anuradha and vindhya, 2000). The risk factors associated with the development of diabetes include age, family history, ethnicity, obesity and physical inactivity. Symptoms of the disease usually include increased thirst (polydipsia), increased urination (polyuria), and increased appetite (polyphagia), failing strength and loss of weight, pruritus vulvae, skin infection or irritation and visual disturbances are frequently present. Many clinical studies have demonstrated that maintaining blood glucose concentrations near normal can prevent these long term complications. Life style modification in terms of diet, habits, exercise and physical activity can significantly reduce the incidence of diabetes as well as helpful in treating the diabetes. In this connection a study was carried out to know the lifestyle of the diabetics residing in Tirupati. Objectives of the study is to find out the demographic profile of the target groups, to assess the food and nutrient intake of the selected diabetics, to assess the health status of the selected diabetics and to know the life style of selected diabetics through a well structured questionnaire.

METHODOLOGY

The research on nutritional sciences focuses on degenerative diseases like diabetes mellitus is a global health problem, of late afflicting an increasing number of people. Diet and lifestyle are precise determinants of their health status though it is a multifactorial disorder. However, in the present study the following data was collected. They were demographic and socio economic status, food and Dietary intakes, health status and lifestyle.

Young (1975) has stated that in any scientific investigation designing of schedule is an essential pre-requist. Hence a well structured interview schedule was designed by incorporating both open and closed ended questions. The schedule was in the study area and reformulated with appropriate questions. The restructured schedule was administered in the study area to gather the data. The information generated through the interviews was recorded. The data was tabulated and analyzed using appropriate statistical techniques.

RESULTS AND DISCUSSION

The results obtained in the study is presented in the following heads

DEMOGRAPHIC AND SOCIO ECONOMIC STATUS

AGE

Age and sex have been found to be the most positively associated parameters with diabetes.

Table no: 1 Distribution of the sample according to Age and Sex

Age	Male	Female	Total
40-50	19 (47.5))	23 (57.5)	42 (52.5)
51-60	21 (52.5)	17 (42.5)	38 (47.5)
Total	40 (100.00)	40 (100.00)	80 (100.00)

From the table it is clear that in the age group of 40-50 yrs diabetes 52 % are more than in the age of 51-60 yrs that is 47% from the total diabetes.

EDUCATIONAL STATUS

Education is an important factor affecting the nutritional status of an individual. Education has its influence on food habits, food behaviors, knowledge and practices of an individual.

Table no: 2 Distribution of the sample according to Age and Sex

Educational status	Male	Female	Total
Illiterates	1(2.)5	7(17.5)	8(10.00)
Secondary	9(22.5)	16(40.00)	25(31.25)
Intermediate	5(12.5)	3(7.5)	8(10.00)
Graduates	18(45.00)	9(22.5)	27(33.75)
Post graduates	7(17.5)	5(12.5)	12(15.00)
Total	40(100.00)	40(100.00)	80(100.00)

From the table it is evident that the result reveals the educational status of women which were less than males. From the total sample 34% were graduates, 31% were belongs to secondary grade, 12% belongs to post graduates and 8% belongs to intermediate, illiterate grade of education.

OCCUPATION

Table no: 3 Distribution of the sample according to occupation

Occupation	Male	Female	Total
Government Employees	25(62.5)	--	25(31.75)
Non-Governmental Employees	1(2.5)	--	1(1.25)
Business	9(22.5)	--	9(11.25)
Retired	5(12.5)	--	5(6.25)
Housewife	--	21(52.5)	21(26.25)
Working women	--	19(47.5)	19(23.75)
Total	40(100.00)	40(100.00)	80(100.00)

From the data results reveal that unemployment were more among females by 52.5 %. It may be due to low literacy rate level among women.

FOOD AND DIETARY INTAKES

Dietary survey constitutes the most important part of any complete study on the nutritional status of individuals or groups. The mean daily nutrient intakes of the diabetics were collected and presented.

Table no: 4 Mean nutrient intakes of the diabetics

Category	Protein intake	RDA (gm)	Fat intake	RDA (gm)	Carbohydrate intake	RDA (gm)	Energy intake	RDA(Kcal)
Male	56.66±9.16	60	31.80±6.68	20	311.21±126.12	345	2323.12±2370.9	1800
Female	52.18±24.06	50	38.73±40.19	20	429.34±589.50	180	1734.01±194.72	1500

The mean protein intake was less among males when compared with the standard values. But it is quietly opposite among females. Mean fat consumption of both males and females was more when compared with the standard values. Rewers et al., (2002) indicated that higher dietary fat intake was associated with a higher risk of diabetes even after adjusting for obesity, age, sex, ethnicity, fat distribution to fasting insulin levels. The mean carbohydrate intake was more in both the males and females. In males there was no much difference but in females the mean values were more when compared with to the RDA. The higher the carbohydrate consumption intake shows the higher blood sugar levels. The calorie intake of males and females were more when compared with the standard values.

LIFESTYLE

EXERCISE

Lifestyle related factors play an important role in the development of diabetes. Some of these risk factors like dietary choices, smoking, and alcohol composition, overweight and sedentary lifestyle are modifiable. Studies have shown that these factors if effectively controlled can lead to reduce in the risk of developing further complications (Deshmuk 2002)

Table no: 5 Distribution of the sample according to type of exercise

Type of exercise	Male (n=33)	Female (n=33)
Walking	26(92.9)	27(79.4)
Yoga	3(10.7)	--
Meditation	3(10.2)	6(17.6)
Others	1(3.00)	--

From the table it is clear that walking, yoga, meditation and other activities followed by males were 92.9, 10.7, 10.2 and 3 % when compared with females respectively in walking 79.4 and 17.6 % in walking and in meditation.

HABITS

Information regarding the habits like alcohol, smoking, consumption of coffee, tea (cups/day), tobacco chewing were recorded and presented in the following table.

Table no: 6 Distribution of the sample according to their habits

Habits	Male (n=40)			Female (n=40)		
	Yes	No	Total	Yes	No	Total
Cigarettes	19 (47.5)	21 (52.5)	40 (100.00)	-	40 (100.00)	40 (100.00)
Alcohol	11 (27.5)	29 (72.5)	40 (100.00)	-	40 (100.00)	40 (100.00)
Coffee	30 (75.00)	10 (25.00)	40 (100.00)	30 (75.00)	10 (25.00)	40 (100.00)
Tea	35 (87.5)	5 (12.5)	40 (100.00)	28 (70.00)	12 (30.00)	40 (100.00)

Results reveal that the individual habits cigarette smoking and alcohol consumption were seen in males that 47.5 and 27.5 % clearly. Coffee consumption were seen same in males and in females same. Tea consumption was more in males than females 87.5 and 70 % respectively.

HEALTH STATUS

TENSIONS

Table no: 7 Distribution of the sample according to tensions

Tensions	Male	Female	Total
Job tension	19 (47.8)	4 (10.00)	23 (28.05)
Family tension	16 (40.00)	18 (45.00)	34 (42.5)
Financial tension	4 (10.00)	2(5.00)	6(42.5)
No tensions	1 (2.5)	16 (20.00)	17 (21.25)
Total	40 (100.00)	40 (100.00)	80 (100.00)

Data reveals that job tensions were more among males by 37.5 %, family tensions were 40 % in males and 45 % in females. Financial tensions were less in both the sexes. 20 % of females have no tensions where as only 2.5 % of males have no tensions.

BLOOD GLUCOSE LEVELS

Table no: 8 Mean fasting and post prandial blood glucose levels of selected sample

Blood Glucose Levels	Males (Mean±SD)	Females (Mean±SD)
Fasting	143.72±44.31	134.52±30.41
Post prandial	239.80±68.52	236.56±80.40

The fasting and post prandial levels were more in both males and females. The mean fasting levels of males and females were 143.72 and 134.52 where as post prandial levels were 239.80 and 236.56 respectively.

CONCLUSION

Diabetes mellitus is a chronic heterogenous group of disorder characterized by lack of insulin resulting in hyperglycemia and other metabolic disturbances. There are widely divergent approaches to the therapy of diabetes and the principle means of treatment include dietary adjustments, adequate physical activity, altering lifestyle and through medication. But, as the old adage goes "prevention is better than cure", safeguarding the self from any disease/disorder always proves to better way of living.

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