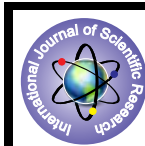


Life Style Pattern of the Selected Diabetics



Food Science

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Diabetes prevalence increases with increasing age, affecting 18.4 per cent of those 65 years of age or older. A World Health Organization's press release stated that the point that India will have the greatest magnitude of increase, approximately 170 per cent by the year 2025 A.D; most of these diabetics will be in the most productive years of their lives. There is a rising prevalence of Type II Diabetes mellitus among younger age groups notably in poor countries. Previously this disease was traditionally associated with being more than 40 years of age or over weight (Cockran, 2001).

The etiopathology of diabetes mellitus include heredity, race, lifestyle, age, nutritional status, stress, infection, altered immune function, altered physiological or metabolic status, drugs and hormones (Ryan *et al.*, 2001).

Type II diabetes is a chronic progressive disease that requires lifestyle changes, especially in the areas of nutrition and physical activity. Lifestyle modification will delay or postpone the onset of diabetes for varied periods (Seshiah, 2005).

The study was conceived with the objective to find out the life-style of the selected diabetics

Methodology For the study 1000 Non Insulin Dependent Diabetes Mellitus (Type II) subjects in the age group of 45-60 years were selected from both sexes based on their willingness to participate in the study. The selected subjects were given an orientation regarding the conduct of the study. The lifestyle pattern such as exercise pattern, smoking and alcoholic habits, consumption of tea, coffee, health drinks, tobacco and pan masala were collected using the interview schedule. The results of the study is tabulated and discussed here

a. Exercise pattern

The habit of adopting exercise of the selected diabetics of 1000 were consolidated and presented in table 1

Table 1
EXERCISE PATTERN OF THE SELECTED DIABETIC SUBJECTS

Duration (Hrs)	Male (N-567)						Female (N-433)					
	Light intensity		Moderate intensity		Heavy intensity		Light intensity		Moderate intensity			
	N	Per cent	N	Per cent	N	Per cent	N	Per cent	N	Per cent	N	Per cent
< ½	129	22.8	63	11.2	14	2.5	129	29.8	20	4.6		
> ½	227	40.1	105	18.5	29	5.1	267	61.7	17	4.0		
Total	356		168		43		396		37			

Exercise with the combination of diet helps to keep diabetes under control. From the above table, 23 per cent and 40 per cent of female carried out light intensity exercise for less than 30 minutes and more than 30 minutes respectively. In the case of female 30 per cent adopted light intensity exercise for less than 30 minutes and 62 percent of subjects were doing light intensity

exercise for more than half an hour. Among the male diabetics, 11 and 19 per cent indulged in moderate intensity exercise for less than half an hour and more than half an hour respectively. In the case of female diabetics, very few subjects were adopted moderate intensity exercise. Meager percent of female subjects carried out moderate intensity exercises for less than 45 minutes. With regard to male subjects a very little percent (2 per cent and 5 percent) of subjects did heavy intensity exercises.

The above results depicts that both male and female subjects strictly adopted intensity exercise compared to other type of exercise pattern. The reasons were due to lack of time, they were not able to adopt moderate or heavy physical activities but they satisfied with light intensity exercise pattern.

Diabetes is more likely to hit people who do not exercise regularly (Supriya Bezharwah, 2003). One hour of brisk walking everyday reduces diabetes by 34 per cent (The Week, 2005).

b. Alcohol consumption

From the data consolidated, it was shocked to note that out of the 567 male subjects selected, only 22 subjects were not used alcohol and others were consuming it. With regard to the duration of alcohol consumption, 68 percent consumed for the past 5 to 10 years and 28 percent consumed for the past 5 years period and only 4 percent consumed for more than 10 years. From this it is concluded 'bad habits die hard'. In connection with the frequency of consumption 49 percent of the male subjects consumed once in a week, about 41 percent consumed once in a fortnight, eight percent consumed occasionally and less than two percent consumed daily. But after the onset of diabetes only 14 subjects stopped consuming alcohol and 65 per cent continued to consume alcohol but once in a week and 16 per cent had once in a fortnight and 19 per cent subjects had occasionally. It is heartwarming to note that none of the female subjects consumed alcohol. Epidemiological evidence in non-diabetic patients suggests that light to moderate alcohol intake in adults is associated with increased insulin sensitivity and decreased risk of Type II Diabetes, coronary heart disease and stroke (Collins *et al.*, 2002).

c. Smoking pattern

The smoking pattern of the selected subjects were clearly shown in table 2

Table 2
SMOKING PATTERN OF THE SELECTED MALE SUBJECTS

Pattern of smoking	Male diabetic subjects(N-567)			
	Before (N-405)		After (N-323)	
	Number	Per cent	Number	Per cent
Yes	405	71.4	323	64.3
No	162	28.6	179	35.7
Total	567	100.0	502	100.0
Type smoked				
Cigarette	246	60.7	206	63.8
Beedi	132	32.6	98	30.3
Cigar	27	6.7	19	5.9

Total	405	100.0	323	100.0
Numbers smoked per day				
1-5	126	31.1	115	35.6
6-10	213	52.6	167	51.7
11-20	54	13.3	32	9.9
21-30	12	3.0	9	2.8
Total	405	100.0	323	100.0

As per the table it is evident that almost 70 percent are having the habit of smoking either one of the items of cigarette, beedi and cigar, in that cigarette smoking was found to be more common among the selected subjects.

Type II diabetes in current smokers is higher than in non – smokers and that the number of cigarettes smoked and the number of people per year are positively related to the develop-

ment of type II diabetes mellitus in a dose dependent manner (Fractic, 2000).

d. Habit of chewing tobacco by the female subjects

Among the female subjects, 51 percent did not have chewing habit of tobacco or betel leaves. Sixteen per cent consumed tobacco daily in one or other form, women who consumed betel leaves daily constitute 18 and occasionally stood at 5 percent respectively.

The result of the present study showed that about 50 per cent of the female subjects had the habit of chewing tobacco or betel leaves. Individuals who habitually chew betel leaves, a common practice may develop Type II diabetes mellitus (Sahay, 2002)

e. Consumption of tea, coffee and health drinks

Virtanens *et al.*, (1999) stated that the risk for diabetes increases with consumption of two cups (400ml) of either coffee or tea. Thus the tea and coffee consumption of the subjects were found out and depicted in table 3

Table 3
CONSUMPTION OF TEA, COFFEE AND HEALTH DRINKS

Quantity*	Tea				Coffee				Other health drinks			
	Daily		occasio- nally		Daily		occasio- nally		Daily		occasio- nally	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
1 cup	39.3	45.3	6.64	16.6	44.8	50.3	7.4	15.9	44.8	50.3	11.4	21.3
3 cups	29.8	18.0	-	-	30.3	27.9	-	-	30.3	27.9	-	-
5 cups	2.5	4.4	-	-	3.4	3.7	-	-	-	-	-	-
>5 cups	2.3	2.5	-	-	1.4	0.7	-	-	-	-	-	-
None	9.9	11.0	-	-	4.2	6.3	-	-	13.2	16.5	-	-

* Multiple response

Data collected regarding the tea and coffee consumption pattern of the selected subjects revealed that majority of the subjects (40 – 50 per cent) consumed one cup per day and rest of them consumed three to five cups of tea/coffee/health drinks daily which showed that subjects are aware of the harmful effects of tea and coffee. So, they were not preferred to have it and reduced the quantity of consumption. Nearly 17 per cent of female subjects did not consume coffee or tea.

From the study it is clear that

- Most of the male and female subjects adopted light intensity exercises when compared to other type of exercise pattern.
- Only 4 per cent of the diabetics did not use alcohol, all others had the habit of consuming it, but after the occurrence of diabetes, meager per cent of the diabetics stopped to consume alcohol. Seventy per cent had the habit of smoking before the onset of disease and after the diagnosis 64 per cent were continued to smoke.
- Majority of the selected diabetic subjects (97 per cent) consumed beverages before the incidence of diabetes and it re-

duced to 47 per cent after the diagnosis of diabetes. Among the female diabetics 16 percent consumed tobacco on a daily basis in some form or other.

- Majority of 40 to 50 percent consumed only one cup (200 ml) of tea/coffee/health drinks per day, remaining subjects consumed three to five cups per day

Conclusion

Exercise is an important tool in preventing and managing diabetes. It is especially good and can be just as helpful as meal planning and medicine. Most people with diabetes who exercise regularly require less medication because exercise lowers their blood sugar. The effect of exercise on blood sugar can last from 12-72 hours. Increased physical activity is an important therapeutic approach in the management of subjects with diabetes mellitus. Clinical trials have demonstrated that lifestyle changes can prevent type II diabetes. The change in total leisure time physical activity was most strongly associated with incident of diabetes

REFERENCE

- Cockran. (2001), "The prevalence of Type II Diabetes mellitus", ISNA, 70, Pp.24-25. | • Collins,K, Sabu, S and Fem, K. (2002), "Serum cholesterol concentration and cardiovascular disease", JIMA, 20(1), Pp.12-15. | • Fractic. (2000), "Smoking related diseases", Indian Journal of clinical practice, 7, Pp.8788-8789. | • Ryan,A.S., Hurlbut,D.E., Latt,M.E., Ney,F.M., Hurley,B.F and Goldberg,A.P. (2001), Causes of diabetes, J. Am. Geriatric Soc, 49, Pp.247-253 | • Sahay,A. (2002), "Complications of Type II Diabetes Mellitus", Diabetes Care, Pp.86-89. | • Seshiah,V. "Preventing a diabetes deluge", The Hindu, Thursday, 2005, March 24. | • Supriya Bezharwah(2003). Supriya Bezharwah. "Why Indians are more prone", India Today, 2003, Oct:6, P.17. | • The Week, (2005). The Week, "Snack Smart", 2005, June 19, 33. | • Virtanens et al (1999), Virtanens,S.M., Ransen,L., Aro,A., Ylonen,K and Lownamaa,R. (1999), "Is children's or parent's coffee or tea consumption associated with risk for diabetes mellitus in children", Nutrition Abstracts and Reviews, 64(9), 863. |