Life style of diabetics attending outpatient department Bahawalpur Victoria Hospital Bahawalpur.

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Abstract:

Introduction:

Diabetes is a group of disorders resulting from insulin deficiency or insulin resistance.

There are two types of diabetes

mellitus which are insulin dependent Diabetes mellitus (IDDM) or type 1 (DM) and non insulin dependent diabetes mellitus (NIDDM) or type 2 DM.

There is increased risk of type 2 DM in people with sedentary life style, middle aged , elderly ones, who have family history of diabetes while types 1 DM has autoimmune component more significant. There is decreased incidence of type 2 DM in those with healthy life style. Also there is slow progression of type 2 DM and risk of chronic complications in those with healthy life practices.

Objectives:

To asses the lifestyle of diabetics attending outpatient department Bahawal Victoria Hospital Bahawalpur.

Materials and Methods:

Study design: - Descriptive Study.

Study Sitting

It was conducted in out patient department Bahawal Victoria Hospital Bahawalpur.

Duration of study: - From April 2017 to May 2017.

Sample Size:

In this study a sample of 100 patients of diabetes attending Out Patient Department of BVH Bahawalpur was taken.

Ethical Issues:

Informed consent was taken from all participants.

Sampling Technique:-

Sample was collected by non probability convenient sampling method.

Inclusion Criteria:-

All those diabetic patients attending out patient department of BVH Bahawalpur who were willing to participle were included.

Exclusion Criteria:-

Not willing to be included in this study

Data Collection:-

Data was collected through predesigned questionnaire of 15 questions to asses the life style of diabetes.

Daat Analysis:-

Data was analyzed manually, frequency and percentage were calculated, charts and tables were made.

Results:-

In this study a sample of 100 patients of diabetes was taken. The result showed 64% were male; prevalence of diabetes was 60% in patient above 50years. 26% were smokers, 63% showed positive family history, 68% of respondent were taking fruits for 1 to 3 days per week, 56% were eating fruits in a day. 76% had vegetable 4 to 6 days in a week.

Regular walk was habit of 49% of respondent and 50% involved in physical activity more than 10minuts in days. 62% were using oral medication and 38% were injecting insulin. 85% were taking medicines regularly, 59% of the all respondent used to check their HbAic after early 6 months back and 52% came to know about their diabetes through routine visits

Results conclusion

Life style of diabetics was satisfactory, most of them were preferring fruits and vegetables, avoiding smoking, taking medicines regularly and regularly doing exercise.

Introduction

Diabetes is group of disorders marked by high levels of blood glucose resulting from problems in how insulin is produced, how insulin works or both.

DM has become a major chronic disease globally. There are two main types of diabetes mellitus which are Insulin dependent diabetes mellitus (IDDM) or type I DM and non Insulin dependent diabetes mellitus (NIDDM) or type II DM .

Those who are at increased risk of developing type ll DM are people who are obese, practice unhealthy dietary habits, people who have family history of diabetes. Middle aged or orderly ones, those who are physically inactive or females who have history of gestational diabetes during pregnancy.

The studies have identified the factors related to the increase of DM among people. As a result it brings much better understanding of the importance of Primary Prevention and control of diabetes in the community, It is however very difficult to change people's behavior and attitudes towards diabetes as it requires well structured diabetes program to educate every individual, especially those who are diabetics. If diabetics adopt healthy and active lifestyle and the other life style interventions the life expectancy will prolong and they will be at lesser risk of developing complications of diabetes mellitus.

According to WHO estimation prevalence rate of diabetes was 2.8% of total population in 2000 and the expected rate in 2030 is 4.4%.

According to other study cases detected in 2010 were 285 million and expected cases in 2030 are 439 million.[2]

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A research conducted in Tehran Iran on the topic of "Food pattren,Life Style and diabetes Mellitus" concluded that diabetes is increasingly growing in young population and can be controlled by Life Style modification and interventions.[2]

Type 2 Diabetes is the most common type of diabetes and usually seen in people over 35 years of age.[3]

The well educated individuals with a good attitude, who always practice a healthy lifestyle, healthy diet, and exercise regularly, have reduced possibility of being inflicted with DM.[4]

Diabetes is 4th or 5th major cause of death and death of diabetes is manually due to cardiovascular disease. While in Malaysia diabetes was ranked at the number Six top killer among the non-communicable disease in year 2005.[5]

Furthermore people with prolonged diabetes are at high risk of developing long term health complication such as IHD. Strokes, kidney failure. Blindness, amputation etc.[6]

Study conducted at out-patient clinics of three family health centers which were chosen randomly in DakhliaGoverrnorate in 2012. According to this study. Some Patients were aware of sign symptoms causes of diabetes. While other were aware of predisposing factors, treatment and management of diabetes. Some knew about fasting blood sugar level. Hence, every person was having his, her own opinion about diabetes and its control.[9]

In a study conducted by Richard et al. It was observed that reduced dietary fate intake & increased intake of carbohydrate

prevents the incidence of chronic disease. Some studies demonstrated that increased intake of carbohydrates reduced the incidence of diabetes. Data suggested that increased carbohydrate intake increases secretion of insulin to maintain insulin homeostasis & high carbohydrate intake leads to increase insulin secretion, is associated with higher level of insulin after a meal. Insulin secretion with high output may be associated with age related decline in insulin secretion, resulting in a more repid development of defect.[10]

A study on DM in Pakistan, a major health problem was conducted at North West general Hospital & research centre Peshawar in Jan 2016. Result is that in Pakistan prevalence of Diabetes is due to heavy urbanization reduced physical activity, consumption of junk Food. Maternal & total malnutrition.[11]

A study conducted on people with diabetes attending the Aga Khan University Hospital AKUN, in Pakistan 2010 found that 12%. 35% and 53% of the patients had knowledge of the symptoms, treatments and complications of diabetes.[12]

A study was carried out at outpatient departments (OPD), Bahawal Victoria Hospital Bahawalpur, Pakistan on April_ May 2016. The result of present study revealed that diabetes is the most prevalent in age group of 40-60s year.

Health practices were good in those who attended university as compared to those who never went to school. Males had better knowledge than female. 58%. Patients were with positive family history. 57% people believed that diabetics should take multiple small meals. 67% of people believed that underground vegetables are

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prohibited for diabetics. 50% believed that fish is best for diabetics. 83% believed that vegetable oil is best fat. 93% believed that regular walk is important for disease control. 70% believed that foot care is necessary. 35% had adequate knowledge about HbAlc. 45% believed that diet drinks can be consumed .[13]

Operational Definitions

Diabetes Mellitus:

Diabetes is group of disorders marked by high levels of blood glucose from problems in how insulin is produced, how insulin works or both. Common features for diabetes are hyperglycemia. Diagnostic criteria for diabetes.

1. Fasting plasma glucose $\geq$ 125mg/dl

2. Random plasma glucose $\geq$ 200mg/dl

3. 2 hour plasma, glucose $\geq$ 200mg/dl during   on OGTT with loading dose of 75gm.

4. HbAlc level $\geq$ 6.5%

HBAlc:

It is called glycosylated hemoglobin HBAlc provides a measure of glycolic control over the life span of RBCs (120 days) and is affected little by day to day variation. It is recommended that HBAlc be maintained below 7% in diabetic patients.

Life Style:

The term lifestyle denotes the interest, opinions behavior orientation of an individual, group or culture.

Gestational Diabetes:

It is a form of glucose intolerance diagnosed during 2nd or 3rd trimester of pregnancy, in which prevailing hormones produce insulin resistance.

Lifestyle Interventions:

Interventions include exercise, diet, smoking cessation and stress management.

METHODOLOGY

The design of the study was descriptive study. The study was   conducted in outpatient department of Bahawal Victoria Hospital Bahawalpur. The duration of the study was from April 2017 to May 2017. Subjects were the patients who came to OPD and the method adopted was by pre-designed questionnaire-A sample of 100 patients was selected and sample was collected by simple random sampling method.

A questionnairy of 15 questions was prepared by researchers. People were selected randomly and questionnaires were filled after taking consent. Diabetics of both genders who were willing to give data were included in study and those unwilling were excluded. Researchers translated and retranslated the form and added answers for convenience of subjects. Data was analyzed manually, frequency calculated, graphs and charts were made using Microsoft Word 2013. Results were displayed in tabulated form along with some charts and graphs.

RESULTS

The research was about assessing the factors associated with Lifestyle of diabetics. A sample of 100 patients was

taken. All of them responded to the questions. Out of those 60% were of age above 50, 23% were 41-50 years old, 14% were 31-40 years old and 3% were 2.30 years old. (Table I) 26% of respondents were male and 36% were female. (Table 1) 26% were smokers, 74% were non-smokers. (Table I) 63% had positive family history, of diabetes and in 37% family history of diabetes was negative .(Fig 1) frequency of fruit intake per week was 1-3 days in 68% of respondents, 4-6 days in 22%, while 10% were not taking fruits in their diet. (Fig 2) those among respondents who were taking 1time fruit serving in day were 56', 19% were taking 2 servings, 7% were taking 3 serving of fruits per day, and 18% of the respondents were not taking fruits every day.

 (Fig 3)

According to study, 24% respondent were taking vegetables 1-3 days in week and 76% were taking vegetables 4-6 days in a week. (Fig 4) 30% of respondents used to take vegetables in diet 1 time per day, 59% were taking 2 servings and 11% were taking 2, time vegetable servings per day (Fig 5)

The habit of regular walk was present in only 49% of respondents (Table I) 50% were spending more than 10 minutes daily in physical activity, while 50% used to spent 10 minutes or less than 10 minutes in physical activity. (Fig 6) percentage of the respondents taking medicine in oral form was 62%, while 38% were following insulin therapy. (Fig 8) Among 100 diabetics, 85% were taking medicine regularly and 15% showed careless attitude. (Fig 7) 69% of respondents thought that their blood sugar level was is

normal range 31% thought their blood sugar level not in normal range. (Fig 9) study revealed 59%

Of respondents check their HbAlc level after 6 month, 16%.

after every 1 year, 25% used to go for HbAlc level after 2 year (Fig 10).

.52% of total respondents came to know about their diabetes by routine visit and 20% came to know by other means. (Table I)

Regarding duration of diagnoses 62% were diagnosed 1-10 years ago. 25% were

(a) Age		Frequency	
	i.	21-30 Year	03(03%)
	ii.	41-40 Year	14 (14%)
	iii	41-50 Year	23 (23%)
	iv.	>50 Year	60 (60%)
(b) Gender	i	Male	64 (64%)
	ii	Female	36 (36%)
(c) Habit of Smoking	i	Yes	26 (26%)
	ii	No	74 (74%)
(d) Habit of Regular Walk	i	Yes	49 (49%)
	ii	No	51 (51%)
(e) Source of Conformation of Diabetes.	i	By Yourself	28 (28%)
	ii	Routine Visits to Doctor	52 (52%)
	iii	Any others	20 (20%)
(f) Duration of Diagnosis of Diabetes.	i	1-10 Year ago	62 (62%)
	ii	11-20 years ago	25 (25%)
	iii	21-30 years ago	13 (13%)

diagnosed 11-20 year ago and 13% were diagnosed 21-30years ago.

i. Table 1 .Frequency Distribution Demographic Data, Associated factors with diabetes among respondents.

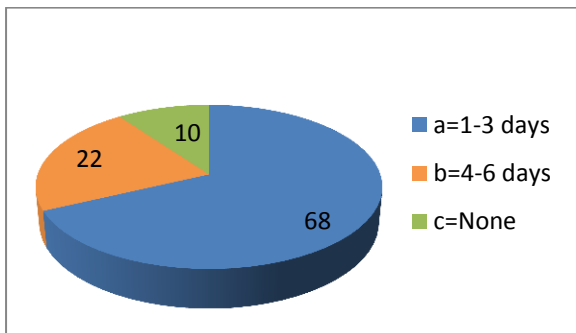Figure – 1.Frequency Distribution of Family History of Diabetes among Respondents
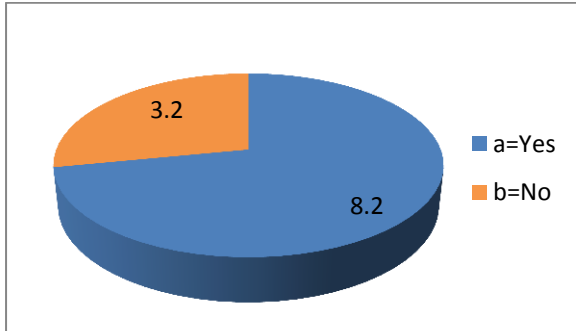
a: Yes , 63%   b: No ,37%

Where,

a = Family History of Diabetes is positive in 63% of Respondents.

b = Family History of Diabetes is Negative in 37% of Respondents

Figure - 2. Frequency Distribution of Days of Fruit intake per week among Respondents.

a :1-3 days per week , 68%
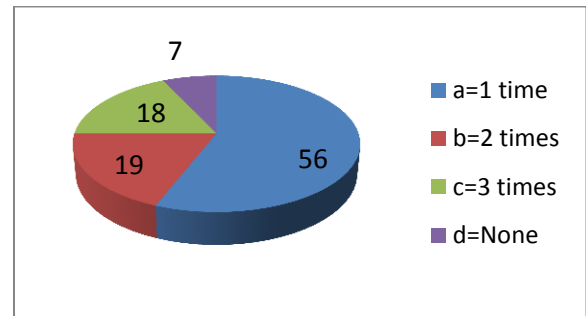
b : 4-6 days per week , 22%

 c :None 10%

a=68% of the Respondents take Fruits in diet 13 days per week

b=22% 01 the Respondents take Fruits In diet 4-6 days per week.

c=10% of the Respondents don't take Fruits in diet every week

Figure - 3. Frequency Distribution of No. of Fruit servings per day among Respondents.

a: 1 time per day . 56%

b: 2 times per day . 19%
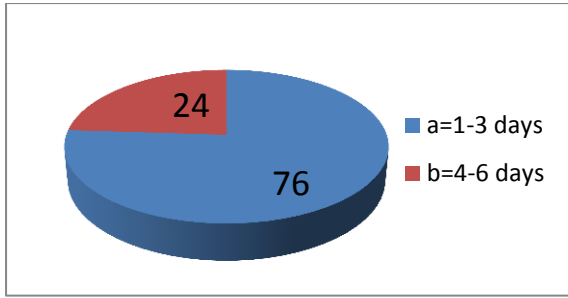
c: 3 times per day . 7%

d: None , 18%

a = 56% of the Respondents take fruits 1 time per day

b = 19% of the Respondents take fruits 2 times per day

c = 7% of the Respondents take fruits 3 times per day

d = 18% of the Respondents don't take fruit in diet every day.

Figure - 4. Frequency Distribution of Vegetable intake per week among Respondents
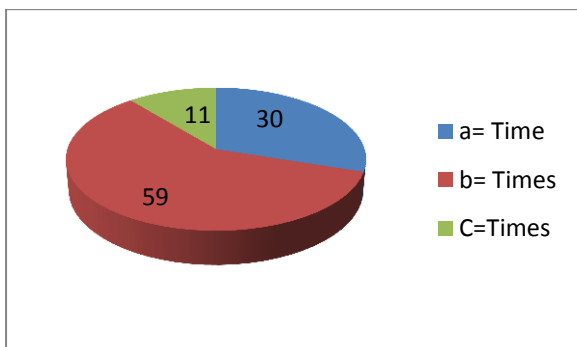
a: 1-3 days per week , 24%

b: 4-6 days per week 76%

Where,

a 24% of the Respondents take vegetables in diet 1-3 days per week

b 76% of the Respondents take vegetables in diet 4-6 days per week

Figure • S. Frequency Distribution of No. of servings of Vegetables per day among Respondents

a:1 time per day ,30%

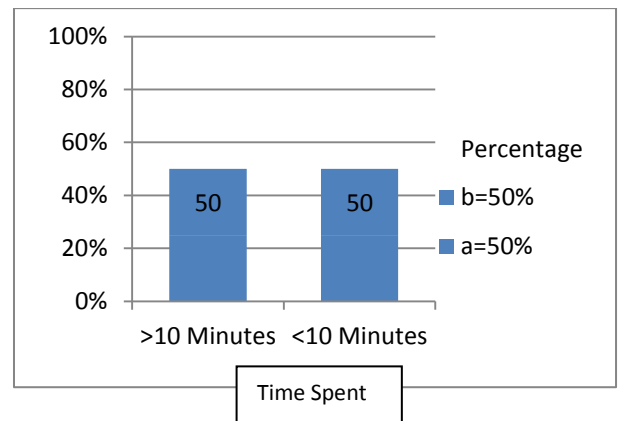b:2 times per day, 59%

c:3 times per day .11%

Where,

at 30% of the Respondents take vegetables in diet 1 time per day.

b. 59% of the Respondents take vegetables in diet 2 tunes per day.

c= 11% of the Respondents take vegetables in diet 3 times per day.

Figure - 6.Frequency Distribution of time spent for physical activity among Respondents.

a: >10 minutes physical activity •50%

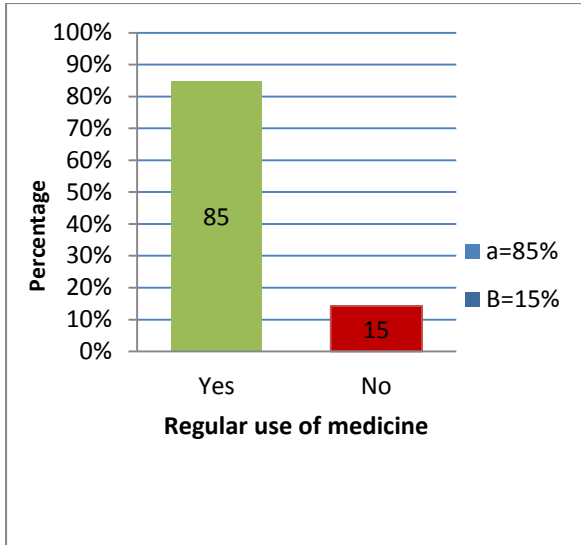b: <10 minutes physical activity •50%

Where,

a: 50% of the Respondents spent time >10 minuses in physical activity.

b: 50% of the Respondents spent time <10 minutes in physical activity.

Figure - 7.Frequency Distribution regarding regularity of medicine use among Respondents.
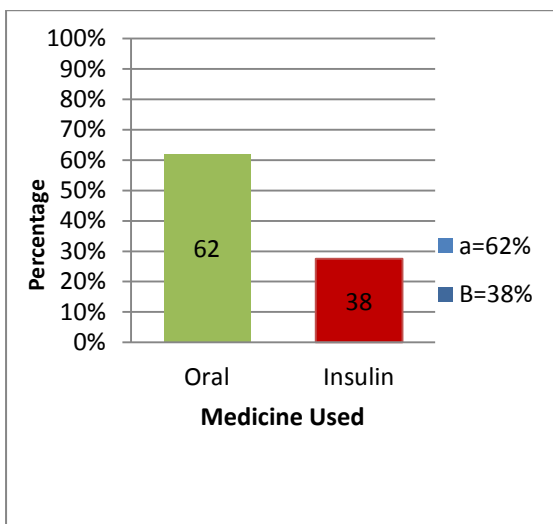
a:Yes ,85%   b: No ,15%

a=85% of the Respondents take medicine Regular.

b=15% of the Respondents don't take medicine

Figure - 8. Frequency Distribution of type of medicine used by the Respondents.
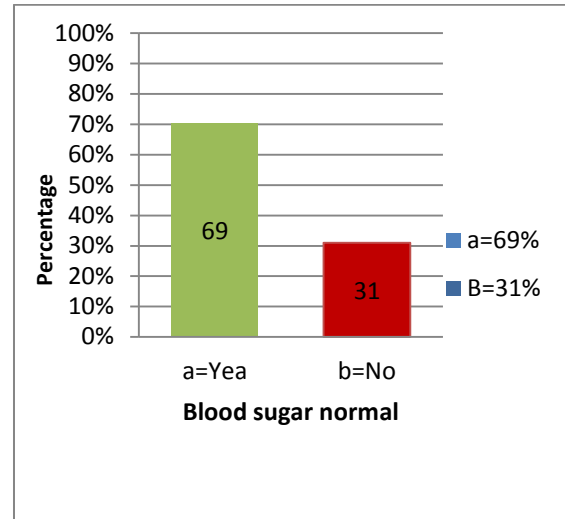

a: Oral   62%   b: Insulin   38%

Where,

a=62% of the Res take medicine in Oral form for Diabetes

b=38% of the Respondents take Insulin as medicine for Diabetes.

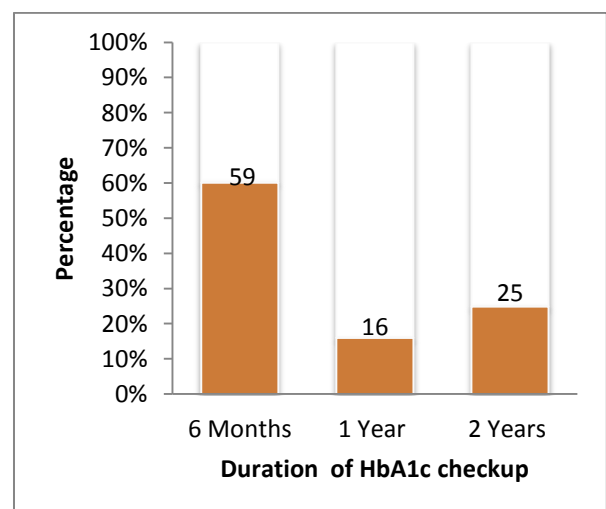Figure - 9. Frequency Distribution of blood sugar status of Respondents.

a: Yes 69%   b: No , 31%

a=69% of the Respondents Think that their Blood sugar levels are In Normal Range.

b=31% of I he Respondents Think that their Blood sugar levels are Not in Normal Range.

Figure – 10. Frequency Distribution of duration of HbA1c checkup In Diabetics among the Respondents.

a: after Every 6 months ,59%

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b: After Every 1 year ,16%

c: After Every 2 years .25%

a=59% of the Respondents check their HbAlc levels After Every 6 months.

b=16% of the Respondents check thee /talc levels Alter Every 1 year.

c=25% of the Respondents check their HbAlc levels After Every 2 sears.

DISCUSSION

The objective of our study was to access the Lifestyle of diabetics. A sample of 100 Patients was taken and data was collected from OPD BVH Bahawalpur. In this research umber of diabetic male was greater than that of diabetic females. In a similar type of study conducted in Sweden number of males was also greater than diabetic women."

Research showed that 60% of diabetics were above the age of 50. But according to a study conducted in Tehran Iran the diabetes is increasingly growing in young population?

According to our study frequency of smokers among diabetics was only 26%. But another study conducted in March 2005 in Pakistan reported that all the diabetics with 1HD were smokers!•

Study revealed that among diabetics only 50% were involved in physical activity for less than 10 minutes in a day. But according to a study conducted in Tehran 30 minutes in the beginning starting with 5-10 min of warm up)!

Our study revealed that most of the diabetics were taking fruits and vegetables in their diet to be prevented from further complications of diabetes. Similarly a study conducted in Berlin stated that high consumption of fruits. legumes. nuts, seeds and vegetable oil is associated with low risk of diabetic complications. Moreover intake of fatty food was associated with high risk of mortality in diabetics?'

Our research concluded that through Lifestyle interventions risk for the complications of diabetes like IUD can be reduced.

By our research it is obvious that most of the diabetic arc following lifestyle

Interventions and have controlled blood glucose level and healthy life style.

CONCLUSION

By our study sample it is concluded that overall lifestyle of diabetic is satisfactory. Most of the respondent preferred fruits and vegetables in their diet, most of them Were non-smokers and were on oral medication and were takingntedicines regularly. However their attitud about physical activity exercise and timing to do test blood glucose level was not satisfactory. Therefore appropriate education about active lifestyle, dietary control and on use of medicine should be given to achieve and maintain healthy lifestyle.

RECOMMENDATION

I. Lifestyle should be changed according to the health condition and regular work and exercise is necessary to maintain health

2. By the result of our study sample it is necessary to create awareness among people about disease, chronic nature, preventive measures, and medication and dietary habits.

3. Regular checkup and regular medicine intake should be recommended.

4. Health care providers should focus on explaining prevention and health practices as hallmark of Treatment instead of medication although later is an important factor in control of complications.

5. Food and beverage advertisements that encourage unhealthy dietary practices or physical inactivity should be discouraged and positive healthy messages should be encouraged.

6. Important health and fitness benefits can be expected to occur to most youth WHO participate daily in 60 or more minutes of moderate to vigorous physical activity.

7. Health literacy should be incorporated into adult education programmers.

8. Government should advise national nutrition policy, nutrition education, other

Public health interventions, to address diet and physical activity within the context of a comprehensive plan for non-communicable disease prevention and health promotion.

9. Awareness about complications, eye examination should be given to them.

10. Daily schedule and amount of meal should he described to them; this can be done by distribution of diet charts in diabetic patients.

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