

LIFESTYLE PATTERN OF TYPE 2 DIABETES IN BATTICALOA DISTRICT

BY

ATHIMOOLAM PRASANTH



Project Report
Library - EUSL

FACULTY OF AGRICULTURE

EASTERN UNIVERSITY

SRI LANKA

2015

PROCESSED
Main Library, EUSL

ABSTRACT

Insulin, which is produced by the β cells of the pancreatic islets, increases the uptake of the glucose, fatty acids, amino acid from the blood and into tissue cells. Consequently, insulin decreases the blood concentration of these substances and promotes their metabolism by tissue cells, especially skeletal muscles, adipose tissues and liver. In diabetic mellitus glucose cannot enter normally and as results, increases the blood glucose concentration, a condition known as hyperglycemia. In people with diabetes, an inadequate amount of insulin may be produced. In some other affected people, decreased number of insulin may be produced. In some other affected people, decreased numbers of insulin receptors on the target cells make it impossible for glucose may be taken up by the cells even if insulin is present.

Diabetes is roughly translated as excessive sweet urine. The causes of diabetes include less amount of secretion of insulin, life style, food style modification and genetic factors. Diabetic ketoacidosis, polydipsia, polyuria, polyphagia, poor wound healing are the major symptoms for the diabetes. Complication of diabetes like damage to the retina, kidneys, nerves, hyperosmolar etc. Regular diet control, physical exercise, medical treatment like intake of insulin, tablets from the class like sulfonylureas, biguanides, alpha-glycosidase inhibitors etc. are plays a major role in control of diabetes. Ayurvedha food habits also helps in control of diabetes. It can be prevented by avoiding the fat contained food items, less consumption of alcohol, etc. Regular exercise is crucial to the prevention of type 2 diabetes. Intake of nutrient foods help to manage the diabetes. Regarding the prevalence of diabetes, the number of cases of diabetes worldwide in the year 2010 among the adults was estimated to be

382 million and will rise to 592 million by 2035 now we should awake and ready to know about the prevalence in our district.

Therefore a study was carried out to identify the prevalence of diabetes in Batticaloa district and to identify the contribution of risk factors to the susceptibility to diabetes among the people in the selected area. For this a total number of 100 diabetic patients were recruited from Batticaloa district. A general health questionnaire was used to collect information about age, sex, onset of diabetes, smoking, alcohol intake, diet pattern, physical activity, household information and family history of diabetes. All the data collected were subjected to analyze by using SPSS statistical software package. This survey will give an idea about the prevalence of diabetes and their management by the people in Batticaloa district.

In Batticaloa district, about 20% people suffered by diabetes mellitus. They are treated by medicine in general hospital and other clinic by doctors. The medical treatment is depending on the tablet and injection. The diabetic is identified by blood test and urine test. But they don't know about the balance diet and food frequency. They only avoid sugar.

Some people eat special food items and leafy vegetables for the decrease in blood sugar level. About 15% of the patients taste the sugar for the sensory satisfaction. Others omitted the sugar for their health. They consume the sugar very less with tea. Knowledge about balance diet is very important to all people and necessary to diabetic patient for the maintenance of blood glucose level.

TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGEMENT.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	viii
LIST OF FIGURES	ix
CHAPTER 01.....	1
1.0 INTRODUCTION.....	1
CHAPTER 02.....	7
2.0 REVIEW OF LITERATURE.....	7
2.1 Diabetes Mellitus and its consequence	7
2.2 Causes of Diabetes.....	9
2.3 Types of diabetes	10
2.4 Risk factors of diabetes.....	11
2.5 Diabetes and Nutrition.....	12
2.5.1 Diabetes and carbohydrates.....	12
2.5.2 Diabetes and proteins.....	13
2.5.3 Diabetes and fat.....	14
2.5.4 Diabetes and fiber.....	15

2.5.5 Diabetes and vegetables.....	16
2.5.6 Diabetes and fruits.....	16
2.5.7 Diabetes and beverages.....	17
2.6 Signs and symptoms.....	18
2.7 Diagnosis.....	19
2.8 Testing.....	20
2.9 Prevention.....	22
2.10 Management.....	22
2.10.1 Lifestyle modification.....	23
2.10.2 Support.....	23
2.10.3 Prognosis.....	24
2.10.4 Medications.....	24
2.11 Recommendation.....	25
CHAPTER 03.....	29
3.0 RESEARCH METHODOLOGY.....	29
3.1 Description of study area.....	29
3.1.1 Physical feature.....	29
3.1.2 Climate.....	30
3.1.3 Population.....	30

3.1.4 Social structure.....	30
3.1.5 Economy.....	31
3.2 Sample size.....	31
3.3 Classification of sample.....	31
3.4 Sampling unit.....	31
3.5 Data collection.....	31
3.5.1 Primary data.....	31
3.5.2 Secondary data.....	31
3.5.3 Survey sheet and questionnaire preparation.....	32
3.6 Data analysis.....	32
CHAPTER 04.....	33
4.0 RESULTS AND DISCUSSION.....	33
4.1 Classification of population.....	33
4.2 Prevalence of diabetes.....	33
4.3 Gender of respondents.....	34
4.4 Age distribution patterns of the respondents.....	35
4.5 Nature of occupation of the respondents.....	36
4.6 Income distribution of the respondents.....	37
4.7 Educational level of the respondents.....	37

4.8 Type of diabetes.....	38
4.9 Treatment for diabetes.....	38
4.10 Type of drug consumption.....	39
4.11 Distribution patterns of respondents and daily activities.....	40
4.12 Type of medication for diabetes.....	41
4.13 Awareness of diabetes.....	41
4.14 Distribution pattern of food habit of respondents.....	42
4.15 Health problems of respondents.....	43
4.15.1 Blood pressure of respondents.....	43
4.15.2 Cardiac problem of respondents.....	44
4.15.3 Distribution patterns of ophthalmic problems of respondents.....	45
4.15.4 Foot ulcer of respondents.....	45
4.15.5 Hypertension of respondents.....	46
4.16. Influence of tobacco usage and smoking of respondents.....	46
CHAPTER 05.....	47
5.0 CONCLUSIONS.....	47
RECOMMENDATIONS FOR FUTURE RESEARCH.....	49
REFERENCES.....	50
APPENDIX 01.....	i