A Study on Available Risk factors and Complications associated with Type 2 diabetes mellitus among the patients of Chattogram Diabetic General Hospital

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Roll no: 0120/14

Registration No: 896

Session: 2020-2021

A thesis submitted in the partial fulfilment of the requirements for the degree of Masters in Public Health (MPH)

One Health Institute

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

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STATEMENT OF AUTHOR

I, Dr. Moitree Biswas, declare that this thesis is submitted for the fulfilment of the requirements for the Degree of Master of Public Health (MPH), One Health Institute, Chattogram Veterinary and Animal Sciences University.

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This is to certify that I have examined the above Master's thesis and have found that is complete and satisfactory in all respects, and that all revisions required by the thesis examination committee have been made.

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We never know the love of a parent till we become parents ourselves.

– **Henry Ward Beecher**

Dedicated to

My loving **parents**

And

Aradhya, the little one who made me a parent

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Abbreviation used in the text

DM= Diabetes Mellitus

HTN= Hypertension

FBS= Fasting blood sugar

2HrPPBS= 2 hours post prandial blood sugar

BMI= Body mass index

CKD= Chronic Kidney Disease

MI= Myocardial Infarction

ABSTRACT

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Background: Diabetes mellitus is a category of metabolic illnesses characterized by hyperglycemia that is caused by inadequate insulin synthesis or a lack of insulin response. In order to prevent diabetes in the general population, people must be aware of risk factors. The present study investigates the level of awareness of the risk factors for type 2 diabetes mellitus (DM) and it determines among visitors at a tertiary care hospital.

Methods: Under an observational, cross-sectional design, 400 diabetic respondents, aged 45-90 years, were conveniently selected from the out-patient and indoor departments of Chattogram Diabetic General Hospital from December 2021 to June 2022. A pretested, semi-structured questionnaire was developed to assess the knowledge and attitude of the respondents. The analysis was carried out by using descriptive statistics with the help of SPSS (Statistical package for social science) version 20 windows software program.

Results: Among 400 participants, females had a higher chance to develop type 2 diabetes mellitus (DM) than males. Male is common in businessmen (24%) and females are common in housewives (44%) who developed type 2 diabetes mellitus (P=0.00). The female had a higher chance to develop type 2 diabetes mellitus due to being overweight (P = 0.00). In this study, males, and females who had less physical activity, had more of a chance to develop type 2 DM. Between males and females, females had more chances to develop type 2 DM due to less physical activity (P = 0.00). Positive family history leads to type 2 DM and it is common in females (P = 0.00). In this study males and females who take more carbohydrates had more chance to develop type 2 DM (P = 0.05).

Conclusions: This study will help to identify modifiable and non-modifiable risk factors of type 2 DM. By modifying lifestyle type 2 DM can be prevented and early diagnosis and properly controlled type 2 diabetes mellitus can prevent early complications, which cause many sufferings and may cause death.

Keywords: Diabetes, risk factor, Awareness, Attitude, Bangladesh