

## ABSTRACT

### **Background:**

Diabetic Mellitus is growing at an alarming rate all over the world. In Sri Lanka, one of five adults has either pre-diabetes or diabetes and one-third of those people with diabetes are undiagnosed. Glycemic control is the ultimate management of diabetes. So, the factors associated with glycemic control have a huge on control and prevention.

### **Objective:**

To determine the glycemic control and associated factors among patients with type 2 diabetes mellitus, attending endocrine clinic at Colombo National hospital of Sri Lanka.

### **Methods:**

A hospital-based cross-sectional analytical study was conducted among 245 type 2 diabetes mellitus patients following at endocrine clinic at the National hospital of Sri Lanka by using a systematic sampling technique. Pre tested and validated interviewer-administered questionnaire was used to collect data. SPSS version 21 will be used in data analysis. HbA1c level and FBS level was analyzed among various factors. Descriptive statistics used to describe the frequency and percentages. Associations with Categorical variables were tested using the Chi square test (p value of  $<0.05$  will be considered significant). Categorical Vs numerical variables were compared using ANOVA test.

### **Results:**

In our study setting, poor glycemic control was seen more in elderly people 91.2% (n=52) and more in females than males 89% (n=65). Good glycemic control was seen more in Sinhalese and poor glycemic control in Muslims. (p=0.03, CI 1.761-0.062) Buddhists had good control and Islamic people had poor glycemic control. There was significant difference between Islamic and Buddhists. (p=0.036, CI=0.0402- 1.887) Participants who didn't do the schooling had poor glycemic control. Glycemic control was high, when the educational level is high. Good glycemic control was seen in people with more income. 47.5% (n=28) Good glycemic control was seen more in participants with shorter duration of illness, 49.2% (n=32) and poor glycemic control was seen in participants with longer duration of illness. 95.5% (n=42). The majority of the participants, still having unhealthy diet practices

even after being diagnosed with the illness and had poor glyceemic control as well.  $P=0.01$  with  $OR=3.05$  and  $(CI= 1.6-5.812)$ . ( $P<0.05$ ). The majority were having complications, and it was statistically significantly associated with poor glyceemic control.  $P= 0.0001$  with  $OR=8.65$  and  $CI= 4.18-17.1$ . ( $P>0.05$ ). Good glyceemic control was seen in 27.8% ( $n= 68$ ) and poor glyceemic control was seen in 72.2% ( $n=177$ ) of the sample. Most of the targeted sample was having poor glyceemic control.

**Conclusions and recommendations:**

Elderly and females have a high chance of developing poor glyceemic control. So, the intervention and prevention programs should be targeted more at vulnerable groups. Dietary practices, physical activity and other healthy lifestyle practices should be focused more on the type 2diabetes patients.

**Keywords:**

Glyceemic control