

UNIVERSITI TEKNOLOGI MARA

**EVALUATION OF MEDICATION ADHERENCE
TOWARDS ORAL ANTI DIABETIC DRUGS AND
INSULIN COMBINATION AMONG PATIENTS WITH
TYPE 2 DIABETES**

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ABSTRACT

Introduction : The prevalence of diabetes mellitus in Malaysia is high with 15.2% reported in 2011. Anti-diabetic drugs are known to effectively control type 2 diabetes mellitus. However previous studies showed that glycaemic control is still far from satisfactory in Malaysia. It has been widely established that adherence to anti diabetic agents is positively associated with a decrease in HbA1c reading.

Objectives : This study aimed to evaluate medication adherence towards anti diabetic medications and its relationship with demographic data as well as clinical data among type 2 diabetes patients.

Method : This is a cross sectional study conducted in medical ward of Hospital Sungai Buloh and involved 200 patients with type 2 diabetes. Borang Soal-Selidik was used to collect data includes patient's demographic and medical backgrounds while Morisky-8 was used to assess adherence. SPSS program version 20 and Microsoft Excel version 2010 were used for analysis. Main outcome was levels of medication adherence. The relationship between variables and adherence was determined.

Results : According to Morisky-8, 121 patients (60.5%) had low adherence, 73 (36.5%) had medium adherence and only 6 (3.0%) had high adherence. Adherence score was positively and significantly associated with clinical data including duration of diabetes, HbA1c reading, number of medications and presence of co-morbidity. Adherence was not significantly associated with demographic data includes gender, age and race.

Conclusions : Effective strategies that enhance better medication adherence among diabetic patients should be adopted. The example of practices and services which can improve patients' adherence are campaigns, medication counselling and medication therapy adherence clinic. This can subsequently improve patients' health and quality of life and further reduce health care costs.

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Malaysia is one of the countries that having the highest number of people with diabetes mellitus. The number of diabetic patients is increased from year to year. The prevalence of diabetes patients risen from 8.3 percent in 1996 to 14.9 percent in 2006. This indicates that about 1.4 million people aged more than 30 years old has affected with diabetes mellitus. Most of the patients about 90 to 95 percent are refer to type 2 diabetes while type 1 diabetes accounts for only 5 to 10 percent of diabetic patients (Association, 2010).

Diabetes is a condition where blood glucose level is higher in the body. There is a disorder of regulation of blood glucose. This can be happened either the body cannot produce enough insulin, defect in action of insulin or it can be a combination of both. Insulin is an important hormone to regulate the blood glucose in body either to use the glucose as energy or to store as glycogen. Diabetes can cause complication to vital organs such as kidney, heart, nerves and eyes if not controlled. So, it needs a constant