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**FACULTY OF PHARMACY** 



AN ASSESSMENT OF RELATIONSHIP BETWEEN DIABETES CARE AND PATIENT COMPLIANCE TOWRDS INSULIN THERAPY

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## **ABSTRACT**

### **OBJECTIVE**

In managing diabetes, success is measured by positive changes in prognostic indicators and outcomes. We have assessed patient's self confidence level, quality of life and metabolic control level and the influence of social and emotional impact of diabetes on lifestyle as the criterion of diabetes care. Knowledge of one's actual and target health outcomes (such as HbA1c values) is hypothesized to be a prerequisite for effective patient involvement in managing chronic diseases such as diabetes. In order to achieve tight blood sugar control (compliance) with insulin therapy, patient must follow strict treatment regiment together with high commitment. Among the commitment that patients are bound to include frequent doses of insulin, regular monitoring of their blood sugar level together with strict dietary requirements and exercise. It is due to the circumstances above that we are interested to carry out this study.

#### RESEARCH DESIGN AND METHODS

We conducted a cross-sectional survey of a sample of 144 respondents who are attending Hospital Sultanah Nur Zahirah living with diabetes and undergoing insulin therapy. We interviewed the respondents using our questionnaires and stated their HbA1c value to know their compliance. For sampling selection, our inclusion criteria consists of 144 respondents with insulin therapy that may or may not have any diseases or complications, aged between 12 to 70 and mobile. Patients that have any diseases or complications are self explanatory of which they may have any diseases other than diabetes such as kidney failure, heart failure and hypertension while some complications that includes retinopathy, neuropathy and ketoacidosis. For the exclusion criteria, we excluded patients with no insulin therapy, patients with unavailable HbA1c value and those who are bed ridden.

## **CHAPTER 1: INTRODUCTION**

# 1.1 The Prevalence And Expectation Of Diabetes

In 2004, according to the World Health Organization, more than 150 million people worldwide suffer from diabetes. Its incidence is increasing rapidly, and it is estimated that by the year 2025 this number will double. Diabetes mellitus occurs throughout the world, but is more common (especially type 2) in the more developed countries. The greatest increase in prevalence rate is, however, expected to occur in Asia and Africa, where most of the diabetic patients will be seen by 2025. The increase in incidence of diabetes in the developing countries follows the trend of urbanisation and life style changes. Diabetes is in the top 10, and perhaps the top 5, of the most significant diseases in the developed world, and is gaining in significance. In order to improve the health of diabetic patient with insulin therapy, a clear assessment and analysis of diabetes care and patient compliance towards insulin therapy is needed.

### 1.2 Introduction Of Diabetes Care

In managing diabetes, success is measured by positive changes in prognostic indicators and outcomes. Below is a list of measurement criteria used in diabetes management or diabetes care :

- 1. Greater patient self-efficacy
- 2. Greater patient self-confidence
- 3. Greater satisfaction with care, continuity, provider, quality of health outcome
- 4. Decreased HbA<sub>1c</sub> and blood glucose levels
- 5. Improved diet and body weight control
- 6. Lowered cholesterol
- 7. Lowered perception of diabetes intrusiveness
- 8. Improved quality of life
- 9. Less depression
- 10. Decreased incidence of diabetic complications.