UNIVERSITI TEKNOLOGI MARA

THE ACCEPTANCE OF ADVANCED CARBOHYDRATE COUNTING BOOKLET AMONG DIABETES PATIENT IN HOSPITAL PUTRAJAYA

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Tekknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Undergraduate, Universiti Teknologi MARA, regulating the conduct of my study and research.
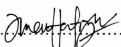
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ABSTRACT

Incorporation of carbohydrate counting in the management of type I diabetes allows a more flexible food choices with no metabolic effects and other harmful health consequences. The purpose of carbohydrate counting is to match the amount of carbohydrate that the patient is going to take with the insulin dosing. This study was done to evaluate the acceptance of advanced carbohydrate counting booklet among patients with type I diabetes. This study was an experimental study, using pre- and post-test study design with an interval of one week to determine whether the knowledge level among the subjects. This study have found out that the advanced carbohydrate counting booklet was accepted among diabetes patients as subjects agreed that the booklet was understandable and actionable. The booklet scored above 70%, which were $86.33 \pm 16.76\%$ for understandability domain and $88.78 \pm 17.31\%$ for actionability. This study also found that there was no significant difference between the level of knowledge of subjects between pre- and post-test with p value of 0.052 (p>0.05). Lastly, result also have shown that there was a weak, not significant correlation between the acceptance of advanced carbohydrate booklet and the knowledge level of subjects. As a conclusion, the advanced carbohydrate counting booklet was accepted among diabetes patients. However, there was no significant difference between the knowledge levels on advanced carbohydrate counting before and after the booklet was distributed among subjects.

Keyword: booklet, carbohydrate, diabetes, education, management

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CHAPTER ONE

INTRODUCTION

1.1   BACKGROUND OF THE STUDY

Diabetes is the most common non-communicable diseases occurring worldwide. According to the Sixth Edition of International Diabetes Federation in its 2014 update, 387 million people are living with diabetes and this number is expected to rise to 592 million by 2035. Up until 2013, more than 79000 children are said to be having type I diabetes mellitus which the highest prevalence is found in Europe. The increasing number of people affected with diabetes has become an economic burden to both individuals and national health systems due to high expenditures for its treatment and medication (Aguiree, Brown, Cho, & Dahlquist, 2013).

Besides imposing economic burden, the main concern for people with diabetes is developing various health problems that is caused from diabetes. Lacking of healthcare awareness among diabetes patients putting them at a greater risk for other complications (Saleh, Azahari, & Ismail, 2013). Thus, continuous support and ongoing patient self-management education is important in combating both acute and chronic complications besides a wide range of intervention is also available in order to help manage this disease (Diabetes Care, 2015). Diabetes education can improve the lives of people with diabetes in a way that education could change their behaviour towards the disease. This is because higher education attainment leads to the development of health-promoting behaviour and attitudes (Wikström et al., 2009). The example of health promoting behaviour includes correct eating practices, regular exercise and adherence to the prescribed medication (Kiblinger & Braza, 2007).

Education is not limited to only formal education through formal institution such as school or universities. There are various ways to educate patient in promoting self-management education among them. One of the ways to educate patient includes through