

UNIVERSITI TEKNOLOGI MARA

PERCEIVED DIABETES SELF-MANAGEMENT, SELF-EFFICACY IN UNDERSTANDING AND USING PRESCRIBED DIABETES MEDICATION, AND DIABETES MEDICATION ADHERENCE AMONG ADULT TYPE 1 AND TYPE 2 DIABETES PATIENTS IN HOSPITAL KUALA LUMPUR

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of the requirement for the degree of
Master of Science

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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 Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This topic 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 Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

It is imperative to increase confidence level of the diabetes patients in self-management of diabetes mellitus (DM) and in understanding and using prescribed diabetes medications as well as adhering to diabetes medication regimen, to achieve healthy desired optimum level of blood glucose, consequently to prevent development of serious diabetes complications. This study measured the perceived diabetes self-management (PDSM), self-efficacy in understanding and using prescribed diabetes medication (SEUM), and diabetes medication adherence (MA), and determined the differences, association, correlations, predictors and their effects that lead to different scores and levels of PDSM, SEUM and MA among type 1 and 2 DM patients attending Diabetes (Endocrine) Clinic at Hospital Kuala Lumpur. This cross-sectional study used convenience sampling to recruit total of 314 adult diabetes patients (≥ 18 years old). The self-administered study instrument consisted of 5 parts: socio-demographic and medical data; PDSM scale (PDSMS) (8 items); medication understanding and use self-efficacy scale (MUSE) (8 items); Morisky Medication Adherence Scale (MMAS-8) (8 items); and medical data that obtained from patient's medical record. Using Malaysian translated versions of M-PDSMS, M-MUSE and M-MMAS-8 adhering to standard international translation guidelines, the three study scales were valid and reliable assessed by using both modern test theory (MTT) and classical test theory (CTT) in both pilot ($n = 62$ patients) and main ($n = 252$ patients) studies. The overall average level of PDSM was moderate ($M = 27.30 \pm 4.52$). The overall average level of MUSE was high ($M = 27.29 \pm 5.43$). However, the overall average level of MA was low ($M = 5.5 \pm 1.78$). Statistical significant mean differences were found in PDSM with gender and smoking status for type 1 DM patients, types of diabetes medicine for type 2 DM patients, and monthly household income and types of diabetes medicine in overall DM patients. Statistical significant mean differences were found in MUSE with marital status, highest completed education level, and education level and emergency visit due to diabetes, in type 1, type 2 and overall DM patients, respectively. For MA, statistical significant mean differences were found in types of diabetes medicine and number of diabetes medicine taking per day, and ethnicity, for type 1 and overall DM patients, respectively. There was a significant association between level of MUSE and different types of DM. There were significant negative correlations between PDSM score and number of diabetes medicine taking per day and HbA1c (type 2 DM and overall DM), between MUSE score and HbA1c (type 2 DM and overall DM), and between MA score and number of diabetes medicine taking per day (type 1 DM) and HbA1c (type 2 DM and overall DM), but significant positive correlations with age (type 2 DM) and number of years diagnosed as DM (overall DM) and between dependent variables among those three studied groups. Using multiple linear regression, significant predictors for PDSM were smoking status (type 1 DM), highest completed education level and HbA1c (type 2 and overall DM), and frequency of diabetes education / counselling and types of diabetes medication (overall DM). The significant predictors for MUSE were smoking status (type 1 DM), highest completed education level, diabetes education / counselling and HbA1c (type 2 and overall DM). The significant predictors for MA were ethnicity, frequency of diabetes education / counselling (type 2 DM), diabetes education / counselling, types of diabetes medication and HbA1c (overall DM).

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