



**The Effect of a Health Belief Model Based Education Program to Prevent  
Diabetes Complications on Dietary Behaviors of Indonesian Adults  
with Type 2 Diabetes Mellitus**

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of  
Master of Nursing Science (International Program)**

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### ABSTRACT

The purposes of this quasi-experimental research, on Indonesian adults with type 2 diabetes mellitus (T2DM), were to: (a) compare dietary behaviors before and after attending a Health Belief Model (HBM) based education program; and, (b) to compare dietary behaviors between those who received the program and those who received routine diabetic health education.

Purposive sampling was used to recruit forty adults with T2DM who attended at the outpatient department of Arifin Achmad Hospital Pekanbaru, Indonesia. The forty subjects were divided into control and experimental group. The control group received routine diabetic health education, while the experimental group received routine diabetic health education and a HBM based education program. The research instruments consisted of Demographic and Health Information Form, Health Belief Form, and a Dietary Behaviors Questionnaire. The questionnaires were validated by three experts and tested for reliability with Cronbach's alpha coefficient. The reliability of the Dietary Behaviors Questionnaire  $\alpha = .97$ . Descriptive statistics, independent and paired *t*-tests were employed to analyze data.

The results revealed that after attending the HBM based education program, the experimental group's dietary behavior scores were higher than the scores they obtained prior to attending the education program ( $p < .001$ ), and their dietary behavior scores were higher than the dietary behavior scores obtained by the control group subjects ( $p < .001$ ). Therefore, the HBM based education program was found to be an effective strategy for changing the dietary behaviors of Indonesians adults with T2DM.