

Jureerat Ngamboontaem 2014: Effect of Nutrition Education and Self Monitoring of Blood Glucose on Hemoglobin A<sub>1c</sub> of Type 2 Diabetes Patients. Master of Science (Home Economics), Major Field: Home Economics, Department of Home Economics. Thesis Advisor: Associate Professor Siripun Chulakarakangka, M.S. 152 pages.

The objectives of this research were to study a number of type 2 diabetes patients who did Self Monitoring of Blood Glucose (SMBG), result of nutrition education and SMBG affect on nutrition knowledge, self-care in many respects and HbA<sub>1c</sub> level in type 2 diabetes patients. Pretest-Posttest Control Group Design was applied to two sample groups ;control and experimental groups obtained by Cluster sampling for 20 patients per group. The both group received similar nutrition education, but the experimental group had to have SMBG, structured testing, and were followed up by phone call from researcher once a week for 24 weeks. Research instruments were diabetes guideline, interview form, questionnaire and SMBG record form. The study was conducted during January – September of 2014. The statistic analysis was the t-test.

The result was found that there were 40.2 % of diabetic patients at the Mayo hospital did SMBG. The experiment was shown that the average scores of nutrition knowledge and all criteria of self-care practice of both groups were progressive increase, but there was not significant difference between both groups ( $p>0.05$ ).Furthermore, the experimental group's HbA<sub>1c</sub> level significantly decreased from  $9.11\% \pm 2.07\%$  to  $7.76\% \pm 1.19\%$  ( $p=0.016$ ) and was lower than the control group ( $9.19\% \pm 2.09\%$ ) with the statistical significance ( $p=0.012$ ).This indicates that SMBG is one of the better method for self-caring of type 2 diabetes patients.

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Thesis Advisor's signature