

25<sup>th</sup> World Congress on

# NURSING & HEALTHCARE

November 08-09, 2018 Sydney, Australia

## The associations among health literacy, diabetes self-management and glycemic control in older people with poorly controlled type-2 diabetes mellitus

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**Statement of the Problem:** Self-management demands adequate health literacy because people with type-2 Diabetes Mellitus (DM) who have limited health literacy tend to be less likely to achieve chronic diseases management. Therefore, to accomplish optimal diabetes self-management, people with type-2 DM need to utilize definite information and decision-making skills over the multiple tasks of self-management. This study was a part of a large mixed methods research that aimed to examine the influence among health literacy on diabetes self-management and glycemic control. The conceptual framework is developed based on bio-ecological theory and health literacy concept.

**Method:** Through convenience sampling with inclusion criteria, the sample included 166 older people with poorly controlled type-2 DM at two hospitals including one district hospital and one university hospital in Pathum Thani Province, Thailand. Data were collected using structured interview and laboratory. Data were then analyzed using descriptive statistics and Multivariate Regression Analysis.

**Findings:** Functional health literacy did not affect diabetes self-management dimensions. Communicative health literacy was a predictor for frequency of overall diabetes self-management ( $\beta=0.196$ ,  $p<0.05$ ), exercise ( $\beta=0.329$ ,  $p<0.001$ ) and foot care ( $\beta=0.205$ ,  $p<0.05$ ). In addition, critical health literacy could predict frequency of self-monitoring ( $\beta=-0.199$ ,  $p<0.05$ ); however, it did not predict frequency of diet control and medication. All domains of health literacy did not show any associations with a current HbA1C level.

**Conclusion:** The findings served as preliminary information for health care providers to develop health literacy tailored intervention to promote diabetes self-management.

**Recommendations:** Health care providers should basically concern about educational materials for people with limited health literacy, including pictures explaining more details with simplified materials.

### Biography

Piyawan Kanan is pursuing her PhD in Nursing from Ramathibodi School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand. She has completed her Bachelor's degree in Nursing Science from Faculty of Nursing, Prince of Songkla University and Master's degree in Nursing Science, Adult Nursing, Faculty of Nursing, Mahidol University, Thailand. Her area of interest is diabetes caring in adult and older people.

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