Validation of a Comprehensive Oral Health Literacy Tool for Thai Older Adults: A Multicenter Cross-sectional Study

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Abstract

Objectives: This study aimed to develop and validate the Oral Health Literacy Assessment for Thai Older Adults (OHLA-OA) tool.

Methods: The study comprised two phases: tool development and data collection. The OHLA-OA consists of three sections: Reading Comprehension, Understanding Directions, and Self-evaluated OHL skills. A cross-sectional survey was conducted with 408 participants from four regions in Thailand. The average age of the participants was 66.8 years (SD=5.6). The descriptive analysis was performed to explore general information, and reliability and validity of OHLA-OA were tested using Kuder-Richardson Formula 20, Cronbach's Alpha, correlation, and logistic regression analyses.

Results: The OHLA-OA showed high reliability with a KR-20 coefficient of 0.79 and Cronbach's Alpha of 0.85. Concurrent validity demonstrated significant correlations between OHLA-OA scores and variables such as age, income, self-assessed literacy ability, and dental service utilization. Convergent validity showed a significant correlation (r=0.319, $p<0.001$) between OHLA-OA and the Thai Rapid Estimate of Adult Literacy in Dentistry (Th-REALD). Predictive validity indicated that higher OHLA-OA scores were associated with better oral health outcomes, including fewer decayed teeth (r= -0.166, $p=0.01$) and more filled teeth (r=0.184, $p<0.01$). The study proposed cut-off scores for 3 levels: Inadequate, Sufficient, and Excellent OHL.

Conclusions: The OHLA-OA tool demonstrated good psychometric properties, making it suitable for assessing oral health literacy among Thai older adults. It highlights the necessity of integrating literacy assessments into dental care and public health interventions to improve oral health outcomes in aging populations.

Keywords: assessment, older adults, oral health literacy, validation