งานประชุมวิชาการสมาคมพฤฒาวิทยาและเวชศาสตร์ผู้สูงอายุไทย ประจำปี พ.ศ. 2566

Healthy aging in the new era

O3 : Translation and Validation of the Thai version of the Telephone Interview for Cognitive Status (TICS) and the Mini Montreal Cognitive Assessment (Mini MoCA) in the Older People

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Introduction: The COVID-19 pandemic has emphasized the significance of telephone-based screening tools in maintaining interpersonal distance. When face-to-face screening is restricted, timely identification of cognitive impairment becomes crucial.

Objective: To translate and validate the Telephone Interview for Cognitive Status (TICS) and the Mini Montreal Cognitive Assessment (Mini MoCA) in Thai older people and to compare validity against mild cognitive impairment (MCI) and dementia between the TICS and the Mini MoCA.

Materials and Methods: Older individuals attending outpatient visits at Geriatric Clinic and Siriraj Hospital were conducted using the Eligibility Criteria Checklist. The Clinical Dementia Rating Scale and the diagnosis were made using the 5th edition of Diagnostic and Statistical Manual of Mental disorders (DSM-V) criteria by the senior geriatric neurologist. The TICS and the Mini MoCA were assessed within 4 weeks after the first evaluation by two independent clinicians who were blinded to the test score and diagnosis. Test-retest reliability was performed at 2 weeks apart. Content validity, construct validity, and inter-rater/test-retest reliability were analyzed.

Results: We studied 123 participants: 41 patients with cognitively normal (CN), 39 patients with MCI, and 43 patients with dementia. The average age and education level of CN, MCI, and dementia groups were 76.6 ± 4.8, 75.8 ± 4.7, 77.1 ± 4.2 years, and 12.4 ± 5.8, 11.7 ± 5.1, 11.9 ± 5.1 years, respectively. There were no

significant differences among the groups. The TICS and the Mini MoCA scores were highly correlated with other global cognitive and functional scores. Test-retest reliability and Inter-rater reliability were excellent (intra-class correlation coefficient: 0.933, 0.995 for TICS and 0.918, 0.998 for Mini MoCA). The sensitivity and specificity in distinguishing CN vs dementia were 87.2/88.0% (AUC: 0.938) for TICS and 94.9/92.2% (AUC: 0.981) for Mini MoCA. While the sensitivity and specificity in discriminating CN vs MCI were 66.7/68.0% (AUC: 0.719) for TICS and 76.7/80.0% (AUC 0.805) for Mini MoCA. The average time administering for TICS and Mini MoCA were 9.1 ± 2.2 and 4.4 ± 1.3 minutes, respectively.

Conclusions: Our findings indicate that TICS and Mini MoCA are valid and reliable instruments for detecting cognitive dysfunction in Thai older population. Mini MoCA seems to be slightly more accurate than the TICS for screening dementia and MCI. These two instruments could be used in clinical practice where face-to-face evaluation is limited.