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A Normative Study of the Full Version of Story Memory in the Korean-Mini Mental State Examination, 2nd Edition: Expanded Version (K-MMSE-2: EV)

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ABSTRACT

Background and Purpose: The Mini Mental State Examination, 2nd edition: Expanded version (MMSE-2: EV) involves an immediate recall (IR) of story memory (SM). A full version of SM has been developed and standardized; it includes delayed recall (DR) and recognition tests in addition to IR to increase its clinical utility as an independent story recall test. This study was conducted to provide norms for the full version of SM in the Korean version of MMSE-2: EV for clinical use.
Methods: A total of 1,168 participants (496 males and 672 females) were included in the study. The ages ranged from 19 to 90 years, and the education level ranged from illiterate to post-graduate. Regression analysis was used to evaluate the relative contributions of demographic variables (age, education, and sex) on the SM measures.
Results: We stratified age into 11 groups, and categorized the education level into 6 groups. It was found that the IR, DR, and recognition scores of SM were affected by age, education level, and sex. We provided corrected means and standard deviations of the IR, DR, and recognition scores of the SM for the demographic variables.
Conclusions: The results indicate the importance of considering demographic variables in interpreting the full version of SM measures. The normative data we have provided in this study should be useful in clinical and research settings for detecting the impairment in verbal memory.

Keywords: Mini Mental State Examination, 2nd Edition (MMSE-2); Story Memory; Immediate Recall; Delayed Recall; Recognition; Normative Data

INTRODUCTION

The Korean version of Mini Mental State Examination, 2nd edition (K-MMSE-2)[1] was standardized and published recently. The K-MMSE-2 provides 3 versions: Brief version, standard version (K-MMSE-2: SV), and expanded version (K-MMSE-2: EV). The K-MMSE-2: EV is an expanded version of K-MMSE-2: SV, with story memory (SM) and processing speed (digit symbol coding) tests added to it.

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