

MINI-MENTAL STATE EXAMINATION AND BRAIN AGE
QUOTIENT—SHORT FORM:
RELATIONSHIP AND DEMOGRAPHIC CORRELATES¹

ARTHUR MacNEILL HORTON, JR., STEPHANIE HELLER, AND JUHAN ANILANE

Baltimore VA Medical Center

ANTONIO E. PUENTE

University of North Carolina at Wilmington

Summary.—Modest intercorrelations between scores on the Mini-Mental State Examination and the Brain Age Quotient were obtained for 30 men in a VA medical program for alcoholic dependency. *rs* with age and education were small. As the two measures are reasonably different, they may be applied to advantage in studies of behavioral intervention.

In recent years there has been considerable interest by behavior therapists in providing services to brain-injured patients (Horton & Wedding, 1984). While there are a wealth of neuropsychological and behavioral assessment tools, of critical importance in devising treatment intervention is the availability of brief but sensitive assessment measures. Repeated assessment over time within the context of a single-subject research design is important to document patients' improvement. In cases where the assessment tools are too lengthy, the use of single-subject research designs are less practical.

In this paper two brief neuropsychological assessment tools are examined. These are the Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975) and the short form (Horton, Anilane, Slone, & Shapiro, 1986) of the Brain Age Quotient devised by Reitan (1973). A sample of 30 subjects all of whom were diagnosed as showing alcoholic dependency by DSM-III and DSM-III—R criteria were selected. The sample had a mean age of 41.9 yr. ($SD = 8.8$) and a mean education of 12.1 yr. ($SD = 2.2$). There were 10 white men and 20 black men. All were inpatients on an alcoholism detoxification ward of a Veterans Administration Medical Center. Subjects were tested only after the acute effects of alcohol intoxication had subsided.

The Mini-Mental State Examination and short form of the Brain Age Quotient were administered by a trained technician in psychology. The former consists of standardized mental status items including orientation, memory, language and drawing tasks. The mean was 27.6 ($SD = 1.6$). The short form of the latter is made up of the Block Design and Digit Symbol

¹Address correspondence to Arthur M. Horton, Jr., Ed.D., Alcoholism Section, Veterans Administration Medical Center, 3900 Loch Raven Boulevard, Baltimore, MD 21218.

subtests of the Wechsler Adult Intelligence Scale—Revised and the Trail Making Test from the Halstead-Reitan Neuropsychology Test Battery. The mean for the short form of the Brain Age Quotient was 66.3 ($SD = 5.4$); see Horton and Wedding (1984) for a description of the tests.

Pearson product-moment correlations were run between the two arrays and also between scores on the Mini-Mental State Examination and age and education and the short form of the Brain Age Quotient and age and education. The Mini-Mental State Examination and the Brain Age Quotient, short form, correlated .28. The Mini-Mental State Examination correlated $-.37$ with age and $.24$ with education. The Brain Age Quotient short-form was correlated $-.002$ with age and $.24$ with education.

These results suggest that these two tests are only modestly intercorrelated so it is possible that each measure taps a different neuropsychological domain of interest. An alternate explanation is that the Mini-Mental State Examination has a higher correlation with age than the Brain Age Quotient, short-form, and this may explain the difference between the two measures. Further research might control for age differences in exploring relationships between these measures. Also, neither measure appears to duplicate the other so both might be employed as outcome measures in behavioral intervention studies with brain-injured patients.

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